

No. 658,721.

Patented Sept. 25, 1900.

J. T. KELLY.  
RADIATOR VALVE.

(Application filed Mar. 28, 1900.)

(No Model.)

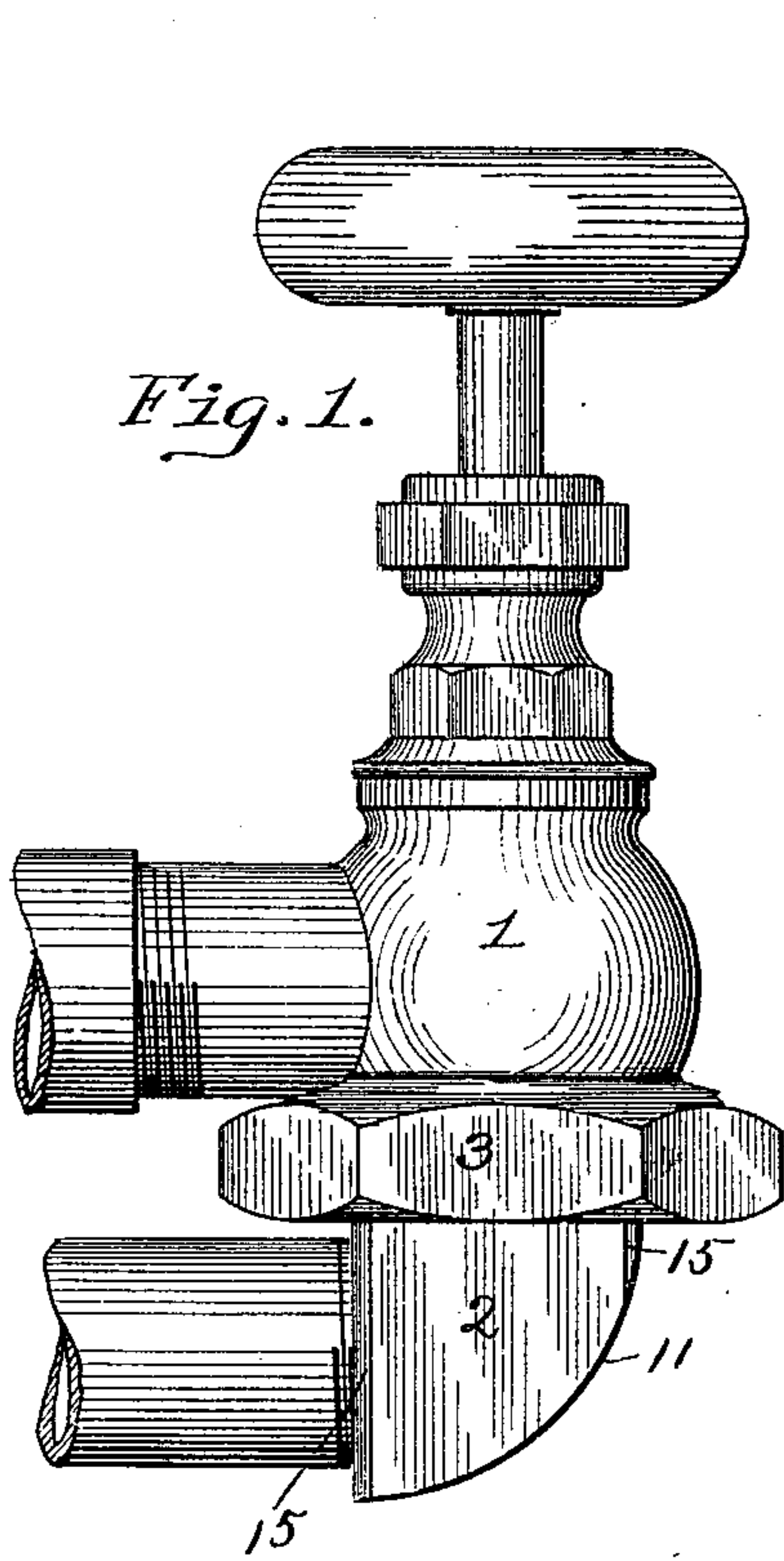


Fig. 1.

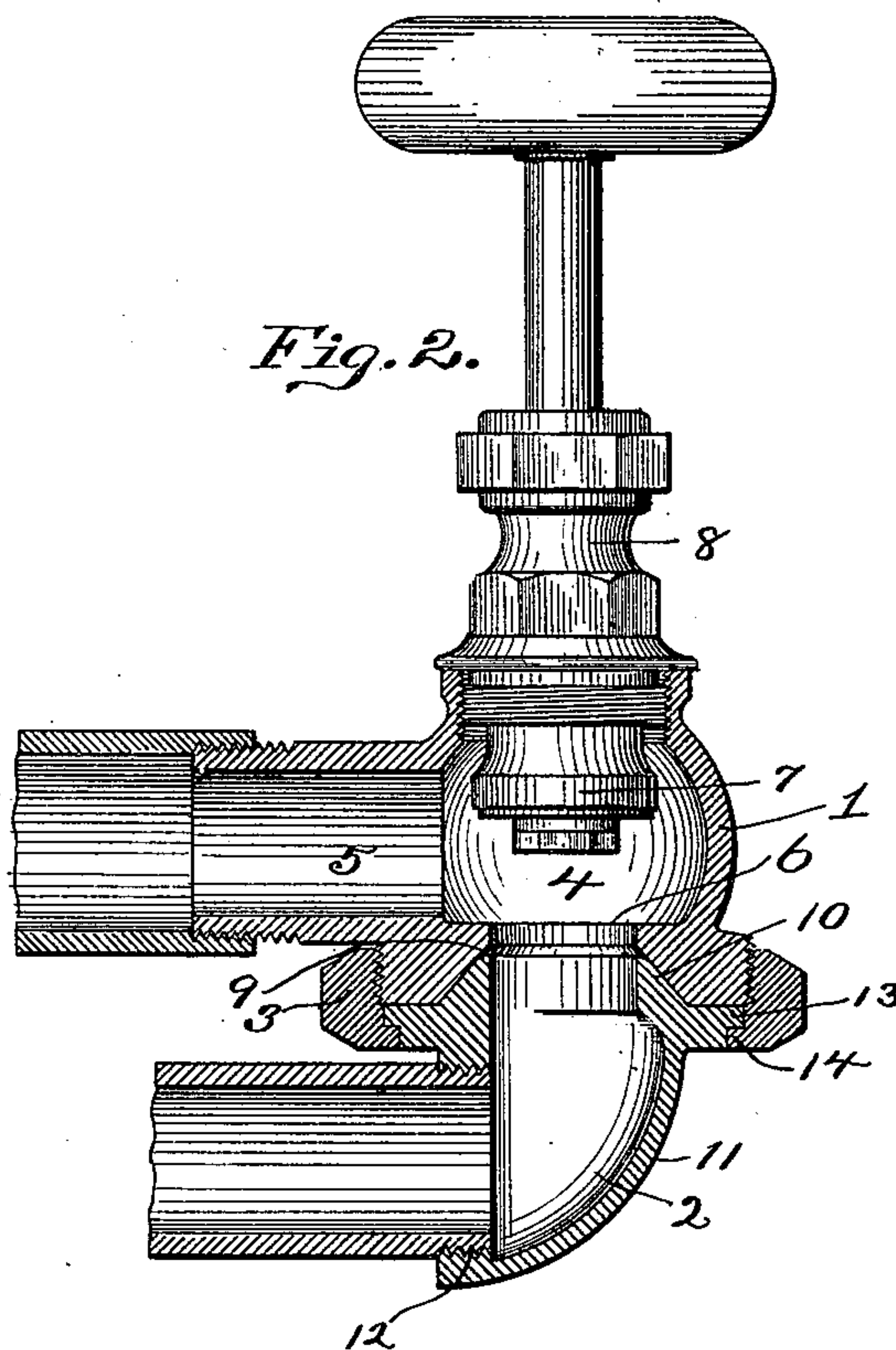


Fig. 2.

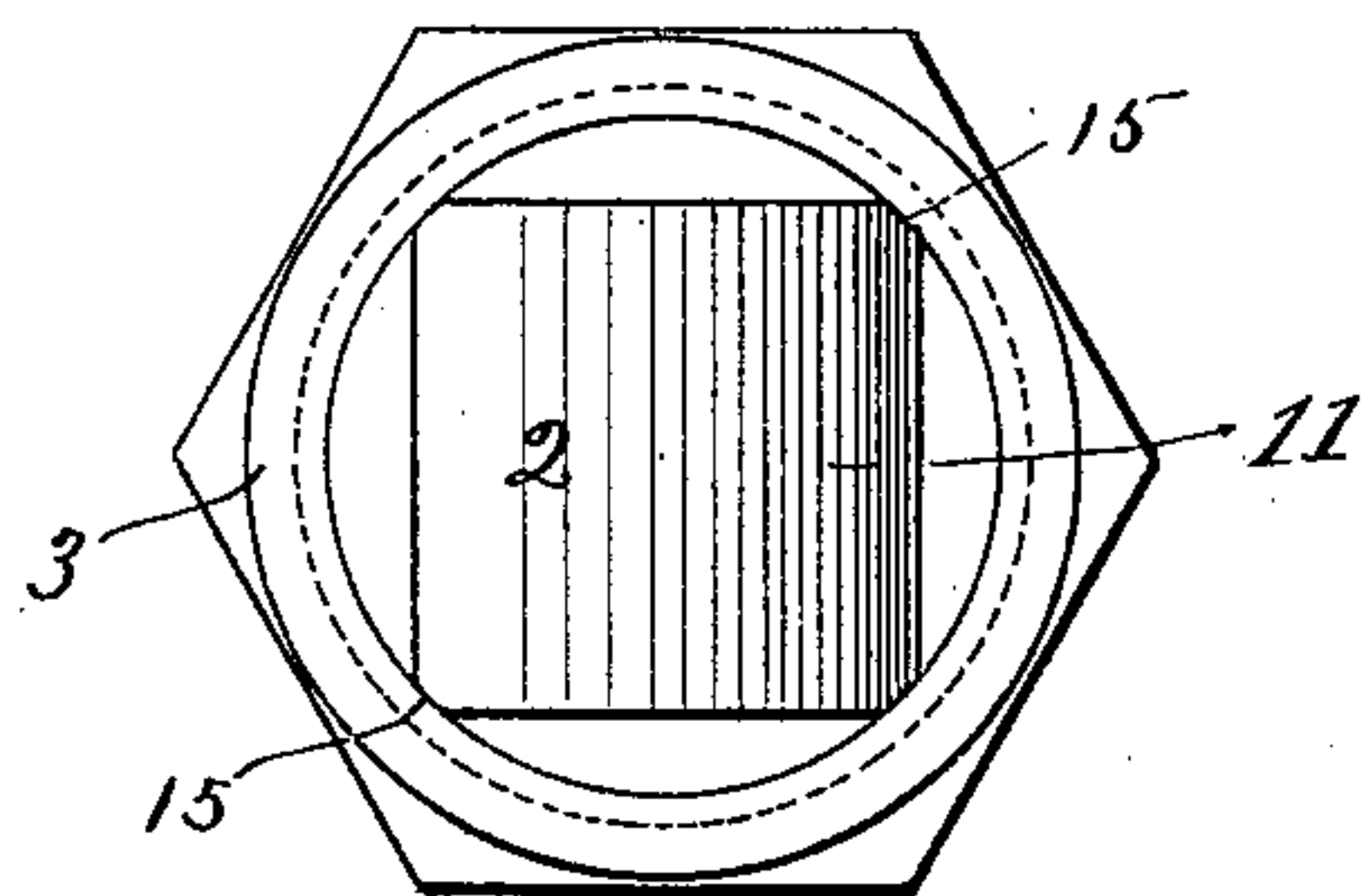


Fig. 3.

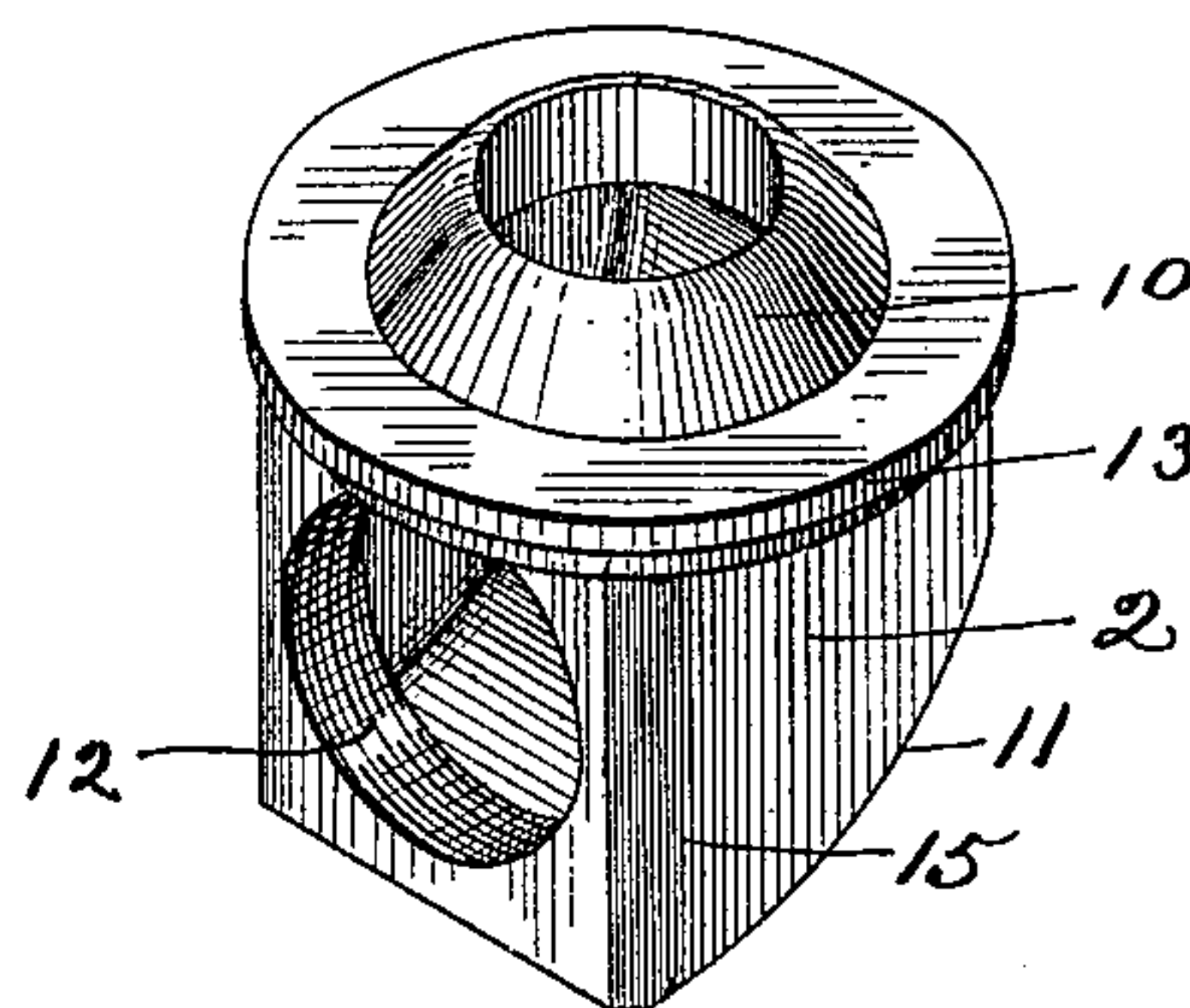


Fig. 4.

Witnesses:

Walter L. Lammie  
Harry G. Wiseman

Inventor:

John T. Kelly  
By Kay & Totten  
Attorneys.



# UNITED STATES PATENT OFFICE.

JOHN T. KELLY, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO GEORGE M. JONES, OF PITTSBURG, PENNSYLVANIA.

## RADIATOR-VALVE.

SPECIFICATION forming part of Letters Patent No. 658,721, dated September 25, 1900.

Application filed March 28, 1900. Serial No. 10,464. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN T. KELLY, a resident of New York, (Brooklyn,) in the county of Kings and State of New York, have invented a new and useful Improvement in Radiator-Valves; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to radiator-valves, its object being to provide a valve of this character by which connections close to the floor can be made either for passing under the radiator itself or leading from any direction to the radiator, and the necessity for raising the valve and the radiator itself any considerable distance above the floor is overcome. It is of course well known that for all such connections, even though the valve parts may be ornamental, it is desirable to have them as low down as practicable, and where the pipe connections extend under the radiator itself this has been found to be impracticable on account of the necessary height of the valve parts in making elbow and like joints.

The object of the present invention is to provide a suitable valve in which these difficulties are overcome.

It consists, generally stated, in a radiator-valve having its body formed in two sections, the upper section containing the valve-chamber, valve-seat, and valve and having a side outlet and also provided with a seat on the bottom face thereof, and the lower section having a threaded opening on one side thereof for the pipe connection and having a seat on its upper face fitting against the bottom seat of the upper section and forming a swivel-joint therewith and a swivel-nut uniting the two sections. By this construction the lower section may be arranged at any desired angle to the upper section, so that connection can be made with the valve in any direction, while the valve itself is brought practically on the level of the connecting-pipes, the only portion extending above the same being the chamber containing the valve.

My invention also consists in certain other improvements, which will be hereinafter more particularly set forth and claimed.

To enable others skilled in the art to make and use my invention, I will describe the same

more fully, referring to the accompanying drawings, in which—

Figure 1 is a side elevation of my improved valve. Fig. 2 is a longitudinal section thereof, showing the valve open. Fig. 3 is a bottom view of the lower section, and Fig. 4 is a perspective view of the same.

The valve illustrated is of the class used in connection with steam-radiators, and it has its body formed of two sections, the upper section 1 and the lower section 2, these sections being connected by a suitable swivel-nut 3. The upper section has the valve-chamber 4, provided with the side outlet 5 and the valve-seat 6, against which the valve 7 seats itself, the valve 7 being mounted in the usual bonnet 8, screwing into the upper section. The upper section is also provided on its bottom face with a conical seat 9, with which the conical seat 10 of the lower section 2 engages, so as to form a steam-tight joint. The lower section has substantially the form of a rectangular box with one corner rounded off, as shown at 11, so as to give an ornamental appearance, and is provided with a threaded opening 12 on the flat face opposite the rounded side. Surrounding the conical seat 10 of the lower section is a flange 13, which is engaged by the flange 14 on the swivel-nut 3 in order to firmly seat the lower section against the upper. The corners of the flat face of the lower section are cut away, as shown at 15, in order to allow the swivel-nut 3 being slipped over said section. By making the lower section in substantially the form of a box with one corner rounded off the required internal cross-area is provided to allow the outlet 12 being placed in the side, thereby forming substantially an elbow and yet permitting the swivel-nut 3 being slipped over said section.

It will be readily seen that with the form of valve shown connection can be made with the valve in any direction and on lines in the same plane with its body, and the two openings or ports of the two sections—namely, the opening 5 of the upper section and the opening 12 of the lower section—can be brought so close to each other that there is practically no loss of space, and if the upper section is connected directly to the radiator the latter



need be supported only a short distance above the floor. It is therefore possible to make connection with radiators in difficult positions, and thus overcome the necessity of having the radiators stand so high within the room.

In the use of the valve the upper section is screwed to the radiator-body or part connected therewith, while the lower section, after having the swivel-nut 3 slipped over it, is screwed upon the pipe leading from any direction to the valve, and the two sections are then connected by means of the swivel-nut, it being practicable, as above stated, to connect the parts on lines in almost the same horizontal plane and therefore to reduce the space between the radiator-body proper and the floor. Steam-tight joints can of course be made between the two sections, while all the parts are easy of access for cleaning or repair.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a radiator-valve, the combination of a valve-body formed in two sections, the upper section containing a valve-chamber, valve and valve-seat, and also provided with a seat on the bottom face thereof and the lower section provided with a threaded outlet on the side thereof, and having a seat fitted against the lower seat of the upper section and forming a swivel-joint therewith and a swivel-nut uniting the two sections.

2. In a radiator-valve, the combination of a valve-body formed in two sections, the upper section containing a valve-chamber, valve and valve-seat, and also provided with a seat on the bottom face thereof, and a threaded face surrounding said seat, the lower section provided with a threaded outlet on the side thereof and having a seat fitting against the bottom seat of the upper section, and a flange surrounding said seat, and the swivel-nut

provided with a flange engaging the flange of the lower section and the threaded face of the upper section to unite the two sections.

3. In a radiator-valve, the combination of a valve-body formed in two sections, the upper section containing a valve-chamber, valve and valve-seat, and also provided with a seat on the bottom face thereof, and a threaded face surrounding such seat, and the lower section having substantially the form of a rectangular box with one side rounded off and provided with a threaded opening in the flat side opposite the rounded side, said lower section also having a seat fitting against the bottom seat of the upper section and forming a swivel-joint therewith, and a swivel-nut carried by the lower section and adapted to engage the threaded face of the upper section to unite the two sections.

4. In a radiator-valve, the combination of a valve-body formed of two sections, the upper section containing a valve-chamber, valve and valve-seat, and also provided with a seat on the bottom face thereof and a threaded face surrounding said seat, and the lower section having substantially the form of a rectangular box with one side rounded off and provided with a threaded opening in the flat side opposite said rounded side, the corners of said flat side being cut away, said lower section also having a seat fitting against the bottom seat of the upper section and a flange surrounding said seat, and a swivel-nut provided with a flange and engaging the flange of the lower section and the threaded face of the upper section to unite the two sections.

In testimony whereof I, the said JOHN T. KELLY, have hereunto set my hand.

JNO. T. KELLY.

Witnesses:

J. S. MATTIMORE,  
JOHN J. MCGEE.