

E. VALLOPPI.
THROTTLE VALVE.
APPLICATION FILED NOV. 18, 1910.

1,013,242.

Patented Jan. 2, 1912.

Fig. 1.

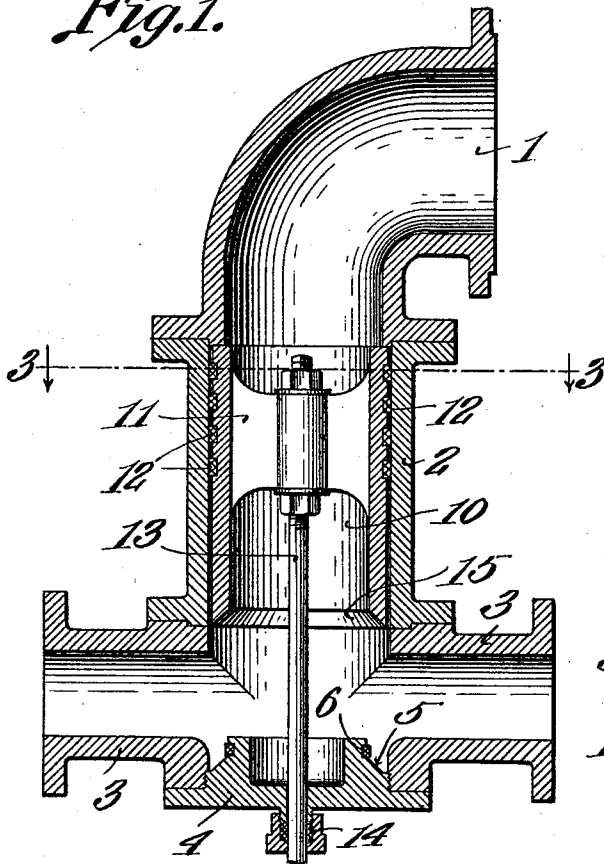


Fig. 2.

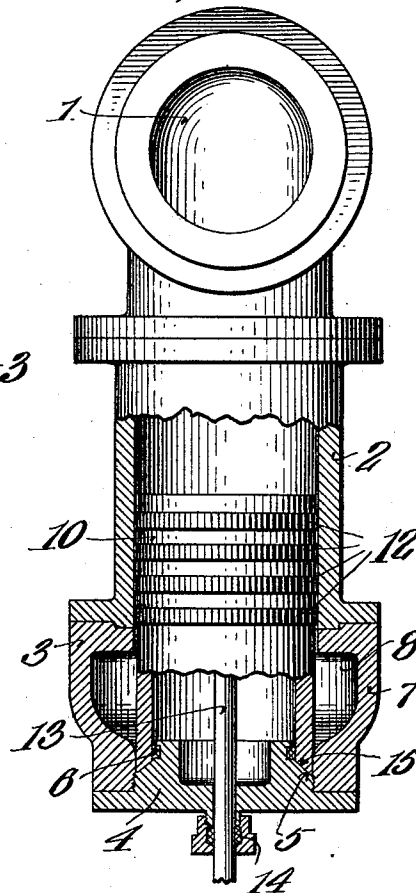
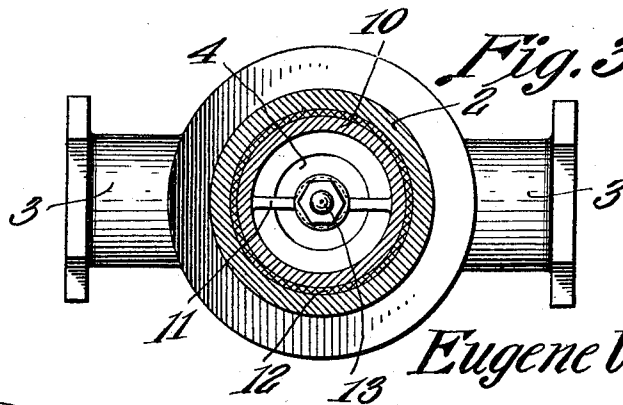


Fig. 3.



Witnesses

J. H. Loring
A. L. Collamer

Eugene Valloppi,
Inventor

by

C. A. Snow & Co.
Attorneys

UNITED STATES PATENT OFFICE.

EUGENE VALLOPPI, OF SCRANTON, PENNSYLVANIA.

THROTTLE-VALVE.

1,013,242.

Specification of Letters Patent.

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Application filed November 18, 1910. Serial No. 593,117.

To all whom it may concern:

Be it known that I, EUGENE VALLOPPI, a citizen of the United States, residing at Scranton, in the county of Lackawanna and State of Pennsylvania, have invented a new and useful Throttle-Valve, of which the following is a specification.

This invention relates to steam engine valves, and more especially to those employed in connection with the throttle; and the object of the same is to produce a throttle valve which will open or close communication between one pipe and another extending across it at right angles, and yet the steam pressure will not tend to either unseat the valve or press it unduly in any lateral direction.

These objects are accomplished by the construction described and claimed below, and shown in the drawings wherein:—

Figure 1 is a central vertical section. Fig. 2 is a vertical section at right angles thereto with the exception of the upper end which is shown in elevation. Fig. 3 is a horizontal section on the line 3—3 of Fig. 1.

In the drawings the numeral 1 designates a pipe (in this case an elbow) leading to or from the boiler, and in the present case it is connected with a short piece of upright piping 2 which in turn is connected at its remote end with a cross pipe 3 in approximately T-shape, and through this cross pipe may flow steam which it is desired at times to admit to the boiler, or by a reversal it may be desired to permit the steam from the boiler pipe 1 to pass at times into the cross pipe 3. I have shown the parts as separate, but it will be understood that they might be formed in one piece of T-shape. The numeral 4 designates a plug preferably screwed into the head of this T in line with its shank 2 and formed of such size that the valve described below may be introduced through the plug opening; and said plug carries the valve seat 5 which is preferably conical as shown and may have a packing ring 6 adjacent it, but the inner end of the plug should not interrupt the bore through the cross pipe 3. The latter is swelled at its

sides as shown at 7 in Fig. 2 to admit of by-pass passages 8 whereby the extremities of the cross pipe 3 are in constant communication with each other.

The valve proper is designated by the numeral 10, and as herein shown it comprises a tubular body having a web 11 across its interior and surrounded by packing rings 12 making a close fit with the interior of the upright pipe 2. To the web is attached a rod 13 which in the present instance passes slidably through a hole in the plug 4 and through a suitable packing joint 14 to prevent leakage of steam, and is obviously operated from below; although it will be understood that other means for sliding the valve 10 could be employed. The lower end of the valve is here shown as beveled as at 15 to fit the valve seat 5, and whatever the construction of the latter the working end of the valve will of course be adapted to it.

The valve is shown open in Fig. 1 and closed in Fig. 2. If steam be admitted at the point 1, it obviously passes through the tubular body of the valve and flows either way into the cross pipe 3 when the valve is open, or can flow neither way when the valve is closed down upon its seat. On the other hand, if the device be so coupled up that there is live steam within the cross pipe 3, its by-pass passages permit it to flow constantly in either direction therein. When the valve is closed as seen in Fig. 2 no steam is admitted through the pipes 2 and 1, but when the valve is opened the steam can flow through the tubular valve into the pipe 1 as shown in Fig. 1. It follows that whichever way this improved valve is used the steam pressure within the valve proper or around it is radial to it and therefore will have no tendency to either unseat it or throw it in any lateral direction which would cause it to bind within the upright pipe 2.

What is claimed as new is:—

1. The herein described valve, the same comprising a T-shaped casing whose stem is adapted for connection with a boiler a valve seat in the cross passage within the head of the T in line with its stem, a tubu-

lar valve movable in the stem of the T and across its head against said seat, and means for moving said valve.

2. The herein described valve, the same
5 comprising a T-shaped casing, a valve seat in the head of the T in line with its stem, a tubular valve movable in the stem of the T and across its head against said seat to close communication between said head and
10 stem, the casing having swells at the sides

of its head forming by-pass passages uninterrupted by the valve in its closed position, and means for moving said valve.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

EUGENE VALLOPPI.

Witnesses:

VICTOR E. BORZONE,
SERAFINO COLLINI.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."