W. Seifert,

Rotary Valve.

No. 113,102. Patented Mar. 28. 1871.

Fig. 1.

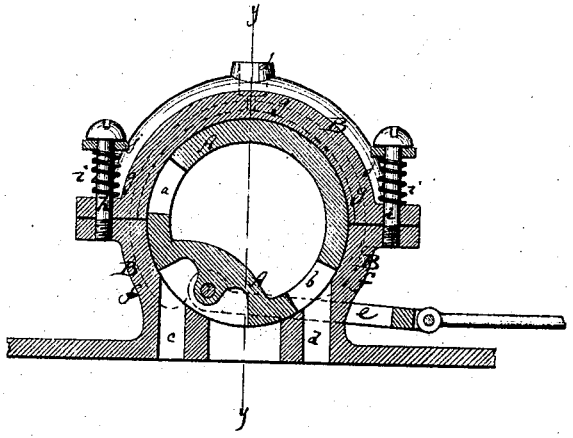
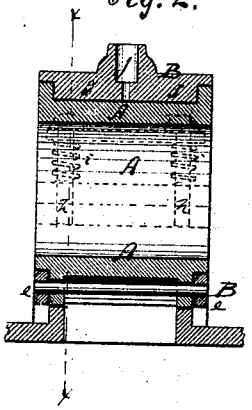


Fig. 2.



Witnesses:

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United States Patent Office.

WILLIAM SIEFERT, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF AND MATTHEW T. KANE, OF SAME PLACE.

Letters Patent No. 113,102, dated March 28, 1871.

IMPROVEMENT IN ANTI-FRICTION BALANCED-VALVES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern

Be it known that I, WILLIAM SIEFERT, of the city of New York, in the county and State of New York, have invented a new and improved Anti-Friction Balanced-Valve; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

Figure 1 represents a vertical transverse section of my improved anti-friction balanced-valve, the line *x x*, fig. 2, indicating the plane of section.

Figure 2 is a vertical longitudinal section of the same taken on the plane of the line *y y*, fig. 1.

Similar letters of reference indicate corresponding parts.

My invention relates to anti-friction balance-valves, and consists in an improvement thereon, which will be hereinafter fully described and subsequently pointed out in the claim.

A in the drawing represents the valve. It is of cylindrical form, hung in a cylindrical case, B, within which it can freely turn.

The valve is tubular, that is to say, bored lengthwise, to receive and contain steam within its interior.

Through the lower part of the valve are cut the two apertures *a b*, which serve to conduct steam alternately to the ports *c d*, in the lower part of the case B.

The valve receives rocking motion by suitable link mechanism C, which preferably terminates in a fork, *e*, where it is fastened to the valve.

The valve, by containing the live steam within its longitudinal bore, is fully balanced thereby in every direction, and works without material friction against any of its surfaces.

The case B is made in two parts. The lower part *f* is rigidly secured to the cylinder, while the upper semi-cylindrical portion *g* of the same constitutes a cap, covering the valve.

The cap *g* is connected with the base *f* by bolts *h h*, and held down upon the same by springs *i*, so that thereby the case is made yielding to the extra pressure of steam back through the ports, which is exerted whenever the engine is reversed.

The cap contains a forked lubricating-channel, *j*, which receives oil in the middle and conducts it to the ends in the manner indicated in fig. 1, so as to let a constant supply of oil to the space between valve and case.

Having thus described my invention,

I claim as new and desire to secure by Letters Patent—

The case B, made in two parts, and held together by springs, and tubular rock-valve A, arranged within said case in the manner specified.

WILLIAM SIEFERT.

Witnesses:

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