D. C. JONES.

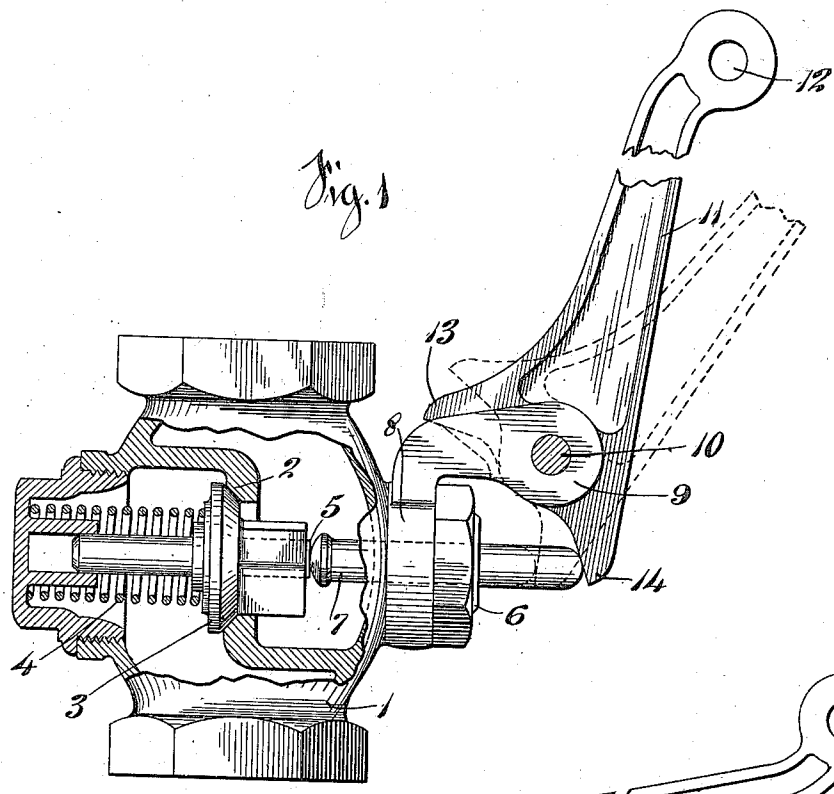
REVERSIBLE LEVER FOR STEAM WHISTLES AND THE LIKE.

APPLICATION FILED AUG. 3, 1917.

1,260,775.

Patented Mar. 26, 1918.

Fig. 1



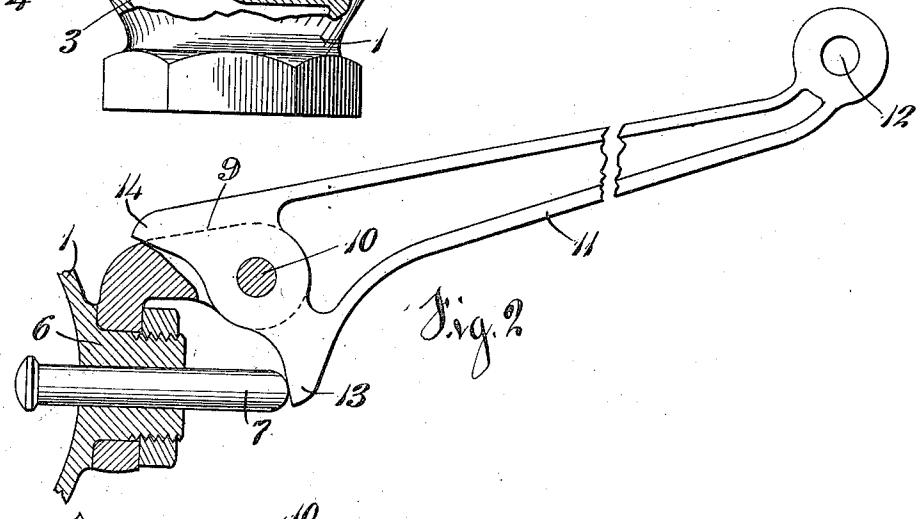


Fig. 2

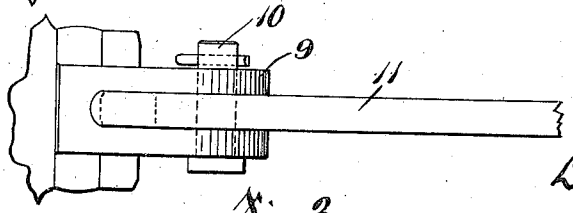


Fig. 3

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UNITED STATES PATENT OFFICE.

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REVERSIBLE LEVER FOR STEAM-WHISTLES AND THE LIKE.

1,260,775. Specification of Letters Patent. Patented Mar. 26, 1918.

Application filed August 3, 1917. Serial No. 184,196.

To all whom it may concern:

Be it known that I, DAVID C. JONES, a citizen of the United States, and a resident of Wyoming, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Reversible Levers for Steam-Whistles and the like, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification.

My invention relates to reversible levers for valves and is especially applicable to steam whistles and the like.

In the manufacture of steam whistles, there have been some difficulties encountered because of the fact that the position of the operator of the whistle may be on the level of the whistle or below it. A whistle made up so as to operate from a down pull, is not operable from the level of the whistle and vice versa.

There have been attempts to provide operating means for whistles that permitted of adjustment to accommodate the position of the operator, but these have not been simple enough.

It is the object of my invention herein to provide a reversible valve lever for a steam whistle or other valve for like purposes which is of extremely simple structure and very easily adjusted for a down pull or a horizontal pull. This object I accomplish by that certain construction and arrangement of parts to be hereinafter more specifically pointed out and claimed.

In the drawing,

Figure 1 is a side elevation of a whistle valve broken away at the valve seat, with the lever shown in position for a horizontal pull.

Fig. 2 is a sectional detail of the plunger side of the valve casing, showing the lever in side elevation and set for a vertical pull.

Fig. 3 is a plan view showing the method of attachment of the lever.

The valve has a casing 1, with a valve seat 2 therein. The valve 3 is spring-pressed by the spring 4 against its seat and has a contact piece 5 for the unseating plunger.

Extending through a boss 6 on the opposite side of the casing to the valve is the plunger or pin 7, which when pushed inwardly strikes the contact piece on the valve and unseats it. This permits steam to pass through the valve chamber into the whistle proper (not shown).

The special problem in providing a reversible lever for pushing in the plunger, is to get the parts as simple as possible, and also to provide for an abutment for the lever such that it will, when released, be pushed back by the plunger until it lies adjacent the abutment. This will hold the lever against rattling about loosely when not in use, which would be undesirable in the extreme.

Fitting over the boss 6 is a collar 8, the metal of which is brought outwardly from the collar and then bends forwardly. The forwardly bending portion is formed in bifurcated shape as at 9, and a pivot 10 is held in the said bifurcated portion. The metal at the base of the forked portion serves as the abutment for either position of the lever, and the pin serves as the lever pivot.

The lever consists in an arm 11, having an eye 12 at the end for the attachment of a wire or cord, and at the other end has two noses or cams 13, 14. The nose 13, which is to be used for vertical operations, extends at about a right angle to the center line of the lever (Fig. 2). The nose 14 extends more nearly parallel with the center line of the lever and is used as the operating nose when the pull is horizontal (Fig. 1). The arrangement of the noses is such that when the plunger is pushed outwardly by the spring of the valve, and either one of the noses is in contact with the end of the plunger, the other nose will lie nearly in contact with the base of the forked portion, as an abutment. The pivot pin hole of the lever lies equidistant from the tip of each nose.

It can be seen that to change the line of pull necessary for operation of the whistle, the pivot pin for the lever will be removed and the lever turned over and remounted. The ease of operation, the extreme simplicity of parts and the abutment feature of the lever are thus accomplished, as is thought to be plain from the above description.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. In combination with a valve casing, a valve operating member, a lever mounting member, and a reversible lever on said mounting member having contact means for

the valve operating member in both positions, one of said contact means adapted for downward pull and one for horizontal pull.

2. In combination with a valve casing, a valve operating member extending outside of the valve casing, a lever for actuating the said operating member, said lever having a plurality of contact means for said operating member, and means for pivoting the lever at a point equidistant from the contact faces of said contact means, said contact means being so directioned from the center line of the lever as to provide for a downward, or a horizontal pull dependent upon the adjustment of the lever.

3. In combination with a valve casing, a bifurcated member, a lever removably pivoted therein, a valve unseating plunger extending through the valve casing, said lever having two noses, one extending in a right angular direction from the center line of the lever, and one extending in a parallel direction with said line, one of said noses being adapted to contact with the plunger and unseat the same in either position of the lever, for the purpose described.

4. In combination with a valve casing, a bifurcated member, a lever removably pivoted therein, a valve unseating plunger extending through the valve casing, said lever having two noses, one extending in a right angular direction from the center line of the lever, and one extending in a parallel direction with said line, one of said noses being adapted to contact with the plunger and unseat the same in either position of the lever, and said noses being proportioned and directioned so that when said plunger is in normal position with one nose in contact with the same, the other nose will lie adjacent the base of the bifurcated member as an abutment.

DAVID C. JONES.

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