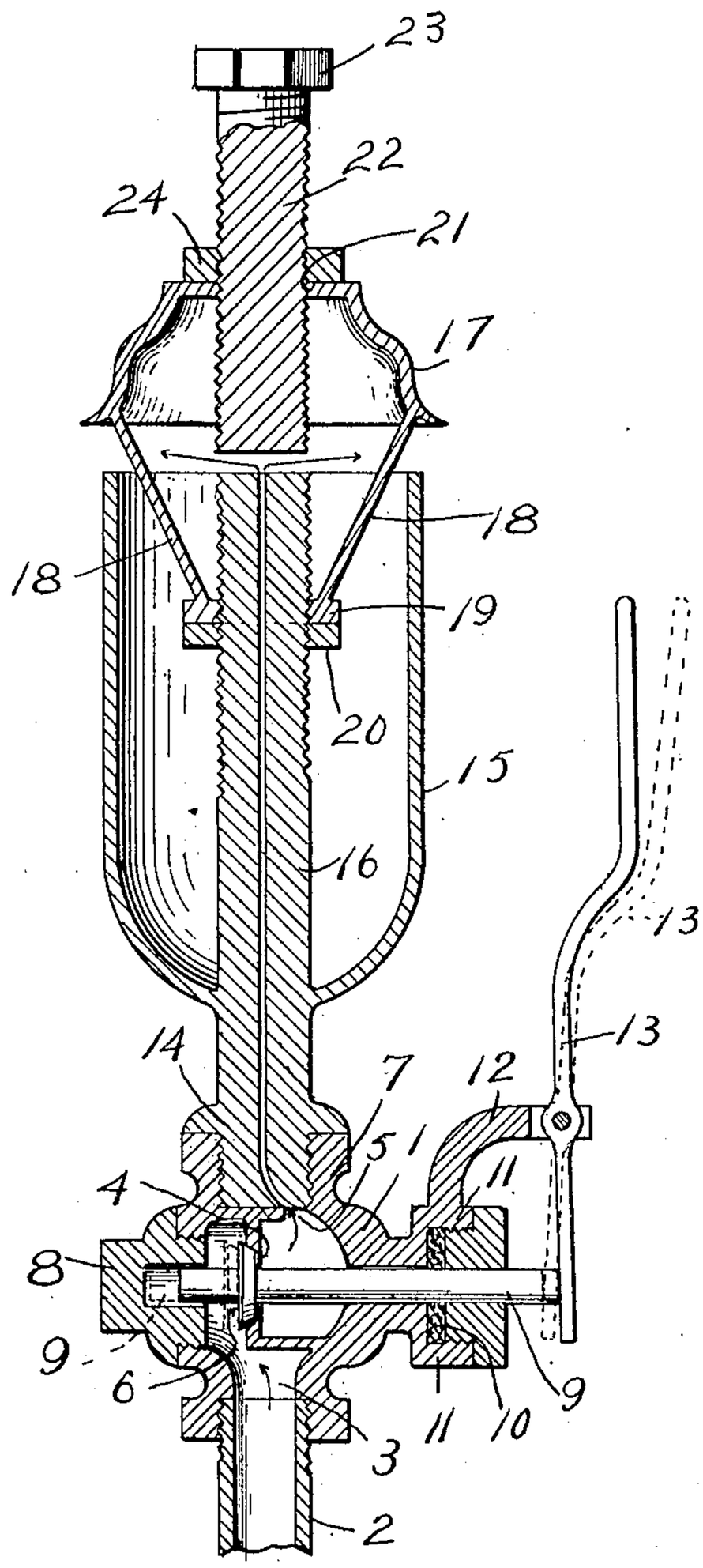
W. E. WHITE & L. K. HOF.

WHISTLE.

APPLICATION FILED FEB. 14, 1908

906,594. Patented Dec. 15, 1908.



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UNITED STATES PATENT OFFICE.

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WHISTLE.

No. 906,594. Specification of Letters Patent. Patented Dec. 15, 1908.

Application filed February 14, 1908. Serial No. 415,928.

To all whom it may concern:

Be it known that we, WILLIAM E. WHITE and LEWIS K. HOF, citizens of the United States, residing at Los Angeles, in the county of Los Angeles, State of California, have invented certain new and useful Improvements in Whistles; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to steam whistles and has for its object to provide a whistle of such construction that the pitch of the sound emitted therefrom may be varied, this being accomplished by providing the whistle with an adjustable bell. We have also conceived the idea of adjustably mounting in the bell an abutment against which the jet of steam impinges and is forced or spread so as to issue through the space between the lower edge of the bell and the upper edge of the cylinder of the whistle.

In the accompanying drawings, there is shown a vertical sectional view through the whistle, the valve being shown in full lines in normal position and in dotted lines when in operative position.

The valve casing of the whistle is indicated by the numeral 1 and threaded into the under side of the casing is the upper end of a steam supply pipe 2. The valve casing is formed, as is usual, with a port 3, a valve seat 4, and an outlet port 5, the first mentioned port opening in front of the valve which is indicated by the numeral 6 so that the steam pressure may normally hold the valve to its seat and the latter port 5 leading from behind the valve into a branch of the casing indicated by the numeral 7. A cap 8 closes one end of the casing and may be removed to permit removal of the valve, the valve including a stem 9 which works through a small packing box 10 upon an extension 11 of the casing, this extension being directed in a line with the cap 8. The stem projects beyond the stuffing box 10 and pivoted in a bracket extension 12 which is formed integral with the extension 11 and projecting beyond the end thereof, is a hand lever 13 the lower end of which rests lightly in engagement with the stem 9, it being understood, of course, that when it is desired to admit steam to the sounding elements of the whistle, the upper or handle end of the lever 13 is swung manually in a direction away from the whistle, the lower end of the lever being swung inwardly thereby moving the valve stem to a corresponding direction for the purpose stated.

Threaded into the extension 7 of the casing is the stem 14 of the cylinder of the whistle this cylinder being indicated by the numeral 15. The cylinder is of the ordinary construction in itself and extending vertically within the cylinder and in concentric relation to the wall thereof is a steam conducting pipe 16.

The numeral 17 indicates the usual inverted bell employed in whistles of this type and this bell is supported above the cylinder by means of spider arms 18 which project upwardly from a collar 19 which is adjustably threaded upon the upper end portion of the pipe 16, there being a jam nut 20 also threaded upon the said pipe and adapted to be manipulated to hold the collar in adjusted position upon the pipe.

From the above it will be understood that by rotating the bell, it will be adjusted to and from the upper end of the cylinder and that consequently the distance between the lower edge of the bell and the upper edge of the cylinder may be varied. The pipe 16 is formed with a very small bore which opens through its upper end.

Formed through the upper end or top of the bell is a threaded aperture 21 through which is adjustably threaded a steam abutment in the form of an integral stem 22 formed at its upper end with a squared head 23 whereby it may be adjusted there being a jam nut 24 engaged upon the stem and bearing against the top of the bell for holding the stem in adjusted position.

From the foregoing description of our invention it will be understood that not only may the bell be adjusted vertically with respect to the cylinder but also that the abutment 22 may be adjusted in a like manner to vary the distance between its lower end and the upper end of the pipe 16. Steam being discharged from this pipe, will strike against the lower end of the abutment and be spread or forced through the space between the lower edge of the bell and the upper edge of the cylinder thereby producing a sound the pitch of which may be varied by adjusting the bell or the abutment or both.

What is claimed, is:—

1. A steam whistle comprising a cylinder,

a steam discharge pipe opening at the upper end of the cylinder, and a bell adjustably supported above the upper end of the cylinder.

2. A steam whistle comprising a cylinder, a steam discharge pipe opening at the upper end of the cylinder, and an abutment adjustably supported above the upper end of the cylinder.

3. A steam whistle comprising a cylinder, a steam discharge pipe opening at the upper end of the cylinder, a bell supported above the upper end of the cylinder, and a steam abutment adjustably supported by the bell above the upper end of the steam discharge pipe.

In testimony whereof, we affix our signatures in presence of two witnesses.

WILLIAM E. WHITE.
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Witnesses:
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