

G. W. EDWARDS.
LUBRICATOR FOR STEAM MACHINERY.
APPLICATION FILED MAR. 27, 1908.

922,113.

Patented May 18, 1909.

Fig. 1.

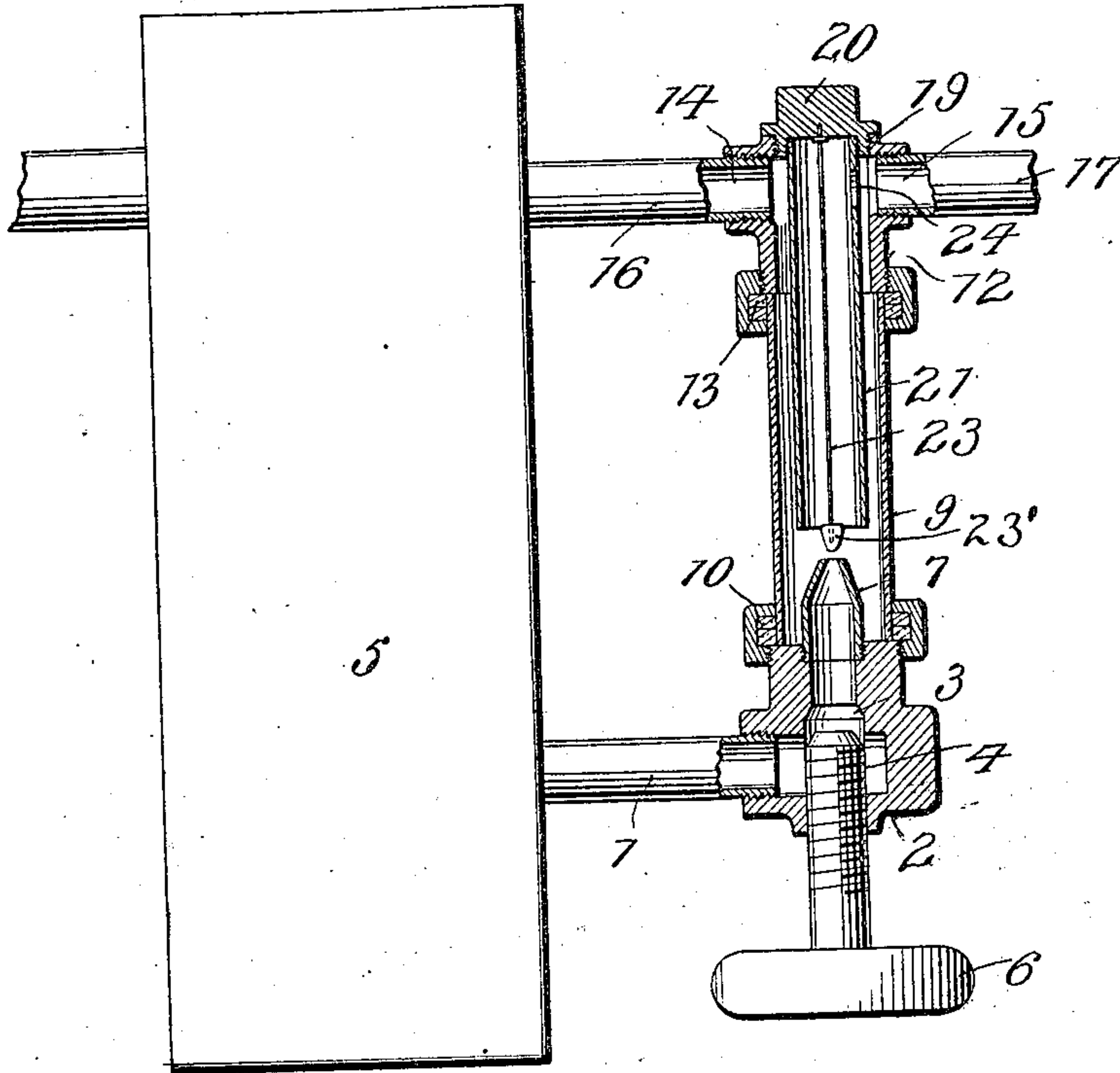
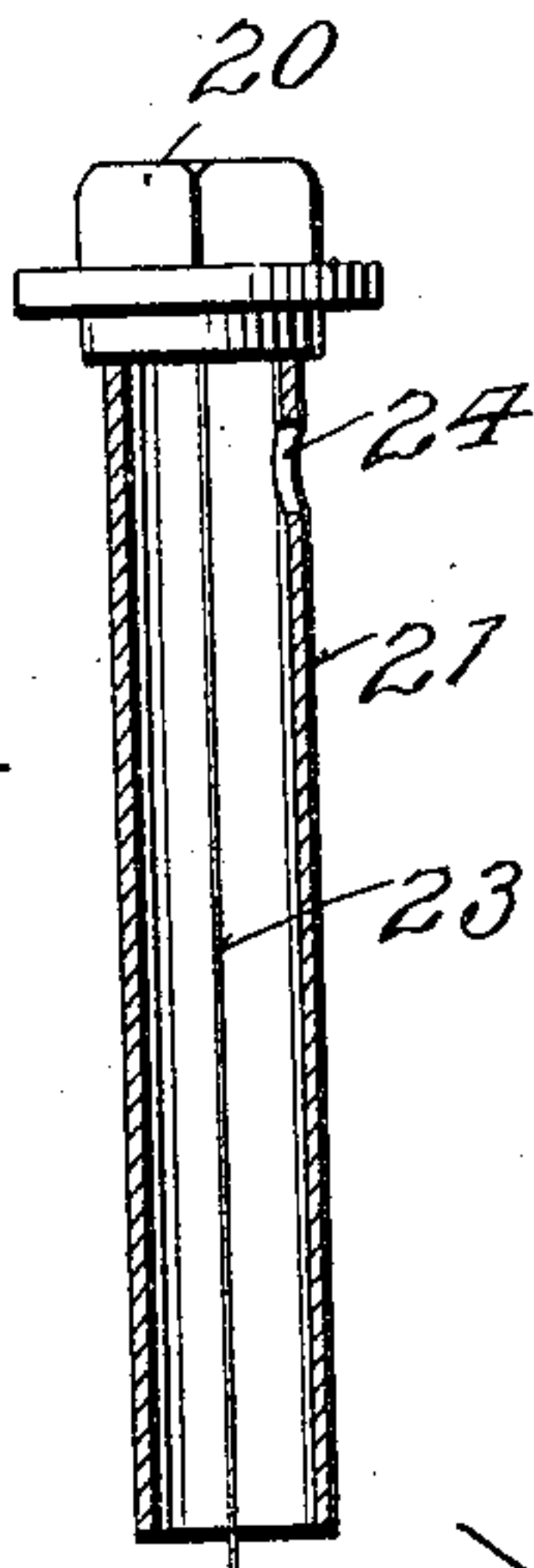


Fig. 2.



Witnesses

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GEORGE W. EDWARDS, OF MENASHA, WISCONSIN.

LUBRICATOR FOR STEAM MACHINERY.

No. 922,113.

Specification of Letters Patent.

Patented May 18, 1909.

Application filed March 27, 1908. Serial No. 423,737.

To all whom it may concern:

Be it known that I, GEORGE W. EDWARDS, a citizen of the United States, residing at Menasha, in the county of Winnebago, State of Wisconsin, have invented certain new and useful Improvements in Lubricators for Steam Machinery; and I 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 new and useful improvements in lubricators for steam machinery.

The object of my invention is, to provide a lubricator in which the action of the water and oil may be observed, and which is so constructed that the lubricant as it travels through the glass feed tube will be guided along a conducting wire, held within a suitable sleeve, to prevent the glass feeding tube from becoming befouled or tarnished by the oil.

In the accompanying drawings I have shown in Figure 1 a sectional elevation of a lubricator embodying my invention, and Fig. 2 shows an enlarged detached detail of the guiding tube in section.

In certain classes of steam machinery a lubricant is automatically fed to the working parts of the machinery, by the action of the steam and water. In these machines it is highly desirable that the lubricator by means of which the oil is automatically distributed, be so constructed that the quantity of oil feeding from the reservoir may be seen at all times so that the flow of oil can be properly gaged.

Referring by numerals to the accompanying drawings 2 represents a hand-valve casing connected by means of the tube 1 to a suitable reservoir 5. This hand valve casing is provided with the seating 3 against which the end of the valve stem 4 abuts. This valve stem is operated by means of the hand wheel 6. Secured to this hand valve casing 2 is a feeding nipple 7 and surrounding this feeding nipple is the glass tube 9 secured by means of the packing ring 10. This tube 9 is extended upward into the union 12 the tube being secured by the packing ring 13. This union has an intake port 14 and an exit

port 15 the steam and water pipe 16 entering the intake, while the tube 17 is projected from the exit port 15. Above, this union 12 is provided with the threaded opening 19 within which is held the plug 20 and held within this plug 20 is the metal guide tube 21 which ends a suitable distance above the nipple 7.

Held centrally within the plug 20 is the pendent conducting wire 23 which terminates proximal to the exit opening of the nipple 7. Upon the lower end of the wire 23 is provided a metallic conoidal plug 23' which is so positioned as to close or partially close the opening in the feed nipple 7 when the wire 23 expands. Furthermore, this part 23' insures the drops of oil, passing up from the nipple 7, coming in contact therewith and flowing properly along the wire 23 as hereinafter explained. In referring to Fig. 1 it will be noted that the guiding tube is of a length less than the conducting wire 23. The tube 21 near its upper end is provided with the discharge opening 24 which is directed into the discharge port 15.

The tube 9 forms an observation tube so that the exact amount of oil escaping out of the nipple 7 may be noted.

The operation of the lubricator is very simple. The steam and water enters the union 12 through the pipe 16 and circles about the conducting tube 21 finding an escape through the pipe 17. The valve stem 4 will in the meantime have been adjusted to permit the desired amount of oil to escape through the nipple 7. Now this oil escapes in drops and as it leaves the nipple encounters the conducting wire immediately above the nipple along which it glides until it is stopped within the upper end of the guiding tube 23 from which it is drawn by the outrushing steam and water. By this means the oil will be prevented from coming into contact with the observation tube 9.

The device is simple of construction and may be readily operated, and

Having thus described my said invention what I claim and desire to secure by U. S. Letters Patent is—

A device of the character described, having in combination, a valve casing, a feed nipple extending from said valve casing, a

glass tube secured to said valve casing, a
union having suitable intake and exit ports
secured to said tube, a conducting wire
pendent from said union and having its
5 lower end proximal to said nipple, and a
guiding tube secured to said union and sur-
rounding said wire of a length less than said
wire and provided with a lateral discharge

opening, all arranged substantially as and
for the purpose set forth. 10

In testimony whereof, I affix my signa-
ture, in presence of two witnesses.

GEO. W. EDWARDS.

Witnesses:

E. A. CADY,

A. F. STRUSS.