No. 723,149. PATENTED MAR. 17, 1903

F. W. EDWARDS.

AUXILIARY HAND OILING CUP FOR LUBRICATORS.

APPLICATION FILED DEC. 31, 1901.

NO MODEL.

Fig. 1.

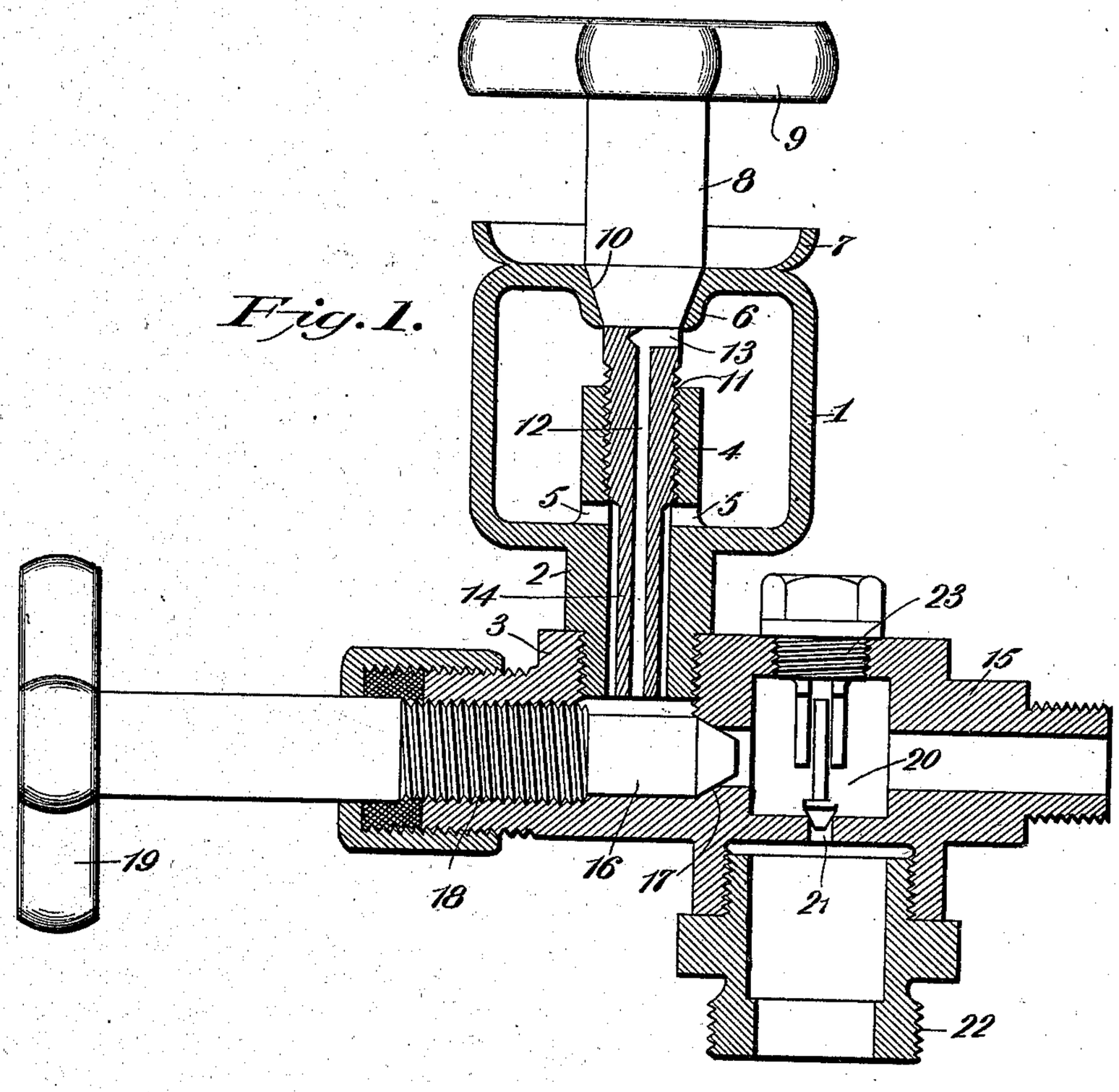
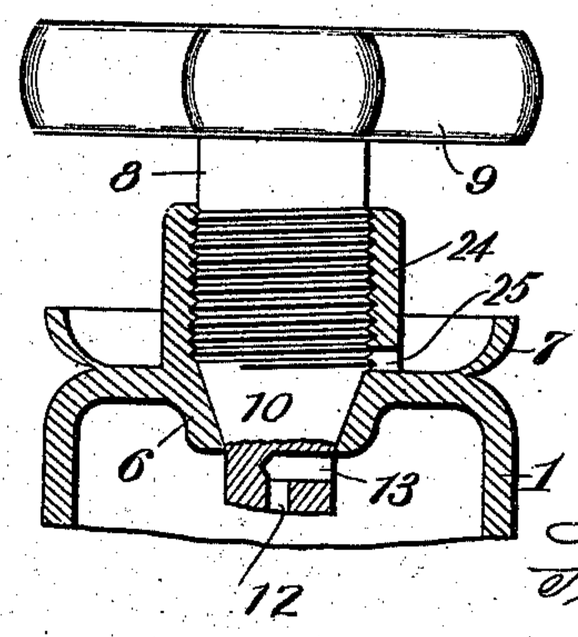


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

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AUXILIARY HAND OILING-CUP FOR LUBRICATORS.

SPECIFICATION forming part of Letters Patent No. 723,149, dated March 17, 1903.

Application filed December 31, 1901. Serial No. 87,897. (No model.)

To all whom it may concern:

Be it known that I, FRANK W. EDWARDS, a citizen of the United States, residing at Logansport, in the county of Cass and State of Indiana, have invented a certain new and useful Improvement in Auxiliary Hand Oiling-Cups for Lubricators, of which the following is a full, clear, and exact description.

The primary object of this invention is to provide a hand oiling-cup as an auxiliary to a sight-feed condensation-displacement lubricator adapted to be used when the engine-throttle is open and whether the steam is on or off the main lubricator.

The invention comprises a lubricant-cup adapted to be applied to the upper feed-arm of a lubricator, the admission of steam to which cup for the purpose of discharging or feeding the lubricant therein contained is controlled by valves and which cup communicates with the tallow-pipe or discharge-pipe from the lubricator, all in the manner and for the purposes hereinafter more particularly set forth and claimed.

In the accompanying drawings, illustrating my invention, in the two figures of which like parts are similarly designated, Figure 1 is a vertical section illustrating the parts closed. Fig. 2 is a similar section showing a modification in the construction of the oil-cup.

The cup 1 may be a casting, having a screw-threaded nipple 2, by means of which it is secured to a portion of the upper feed-arm 3 of an ordinary sight-feed lubricator. Within this cup is arranged an internally-screw-threaded lug 4, having one or more openings 5 at its base—that is to say, at the bottom of the cup—which lead into the tubular nipple 2.

6 is a valve-seat in the upper portion of the cup, and 7 is a drip-flange on top of the cup.

8 is a stem having a hand-wheel or other operating device 9. This stem has a beveled portion 10, which coöperates with the valve-seat and serves as an inlet-valve for the introduction of lubricant into the cup. The stem has a screw-threaded portion 11, which coöperates with the screw-threaded lug 4. This stem is provided with a longitudinal passage 12, having a lateral opening 13, communicating with the interior of the cup 1. The lower portion 14 of this stem is of considerably less diameter than the internal diameter of the nipple 2 or is grooved longitudinally, so as to afford passages around the stem communicating with the openings 5 in the bottom of the lug 4. The passage 12 and the passages around the portion 14 of the stem which communicate with the openings 5 also open into the feed-arm 3; but communication with the other portion 15 of the feed-arm is controlled by a valve 16, seated at 17, and said valve may be secured in the feed-arm 3 by a screw-threaded connection 18 and operated by a hand-wheel 19.

In the portion 15 of the feed-arm is arranged a check-valve 20, which controls a port 21, opening into the coupling 22, with which the sight-feed glass is united. This check-valve is under the control of a screw-cap 23.

As shown in the modification, Fig. 2, the valve-seat 6 may have an external upward continuation 24, with which the valve-stem may have a screw-threaded connection, and one or more holes 25 are made in this extension 24 at the bottom of the drip-cup 7, so as to provide for the entrance of oil in filling and the return into the oil-cup of any drippings that may collect in the said drip-cup.

The operation is as follows: The valve 16 is normally closed when this auxiliary hand oiling-cup is not in use and the valve 10 is opened. The cup 1 is then filled with oil, after which the valve 10 is tightly seated in its seat 6, and then the valve 16 is opened. This open valve 16 admits steam up through the passages surrounding the stem 14 and through openings 5 into the bottom of the oil-cup, and thereby displaces the oil and causes it to overflow through opening 13, and on down through the passage 12 into the upper feed-arm, and thence out through the continuation 15 of said feed-arm into the tallow-pipe. The check-valve 20 is closed by the pressure in the feed-arm and of course is so closed when the sight-feed glass is broken.

As heretofore explained, this cup may be used when the steam is on the lubricator with the engine throttle-valve open, and it can

also be used when the steam is shut off, and it has been found to be a valuable auxiliary in maintaining the flow of lubricant in case of derangement of the main lubricator and under other circumstances.

Of course I do not limit my invention to the single object stated—namely, as an auxiliary to the usual sight-feed lubricator—but wish to be understood as regarding the invention as an independent apparatus of wider application and mean so to be understood in claiming the invention.

What I claim is—

1. An oil-cup, having a valve-seat at its top, and rising from its bottom an internally-screw-threaded lug provided with bottom openings into the cup, and a tubular exit-nipple at its bottom, and a valvular device coöperating with said valve-seat and lug to close the cup at top and bottom and including a stem having an internal lubricant-discharge passage, and external steam-passages on said stem opening communication between the lubricator feed-arm and the bottom openings in the cup, combined with a lubricator feed or discharge arm adapted to be connected with a steam-supply, and a valve for controlling communication between the said oil-cup and discharge connections.

2. An auxiliary hand oiling-cup, for sight-feed lubricators, comprising a cup proper having a valve-seat in its top, an externally-screw-threaded nipple 2, an internally-screw-threaded lug 4 arranged within the cup and alined with the nipple and having lateral openings 5 at the lower part of the cup, and a valve-stem passing through the nipple and lug and screw-threaded to engage the latter and coöperating with the valve-seat in the top of the cup and having external passages at its lower end communicating with the openings 5, and also having an internal passage-way opening into the cup near its top, combined with the upper feed-arm 15 of a lubricator and a valve to control communication therewith, substantially as described.

In testimony whereof I have hereunto set my hand this 28th day of December, A. D. 1901.

FRANK W. EDWARDS.

Witnesses:
F. H. WIPPERMAN,
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