

(No Model.)

G. B. MILLER.  
LUBRICATOR.

No. 567,788.

Patented Sept. 15, 1896.

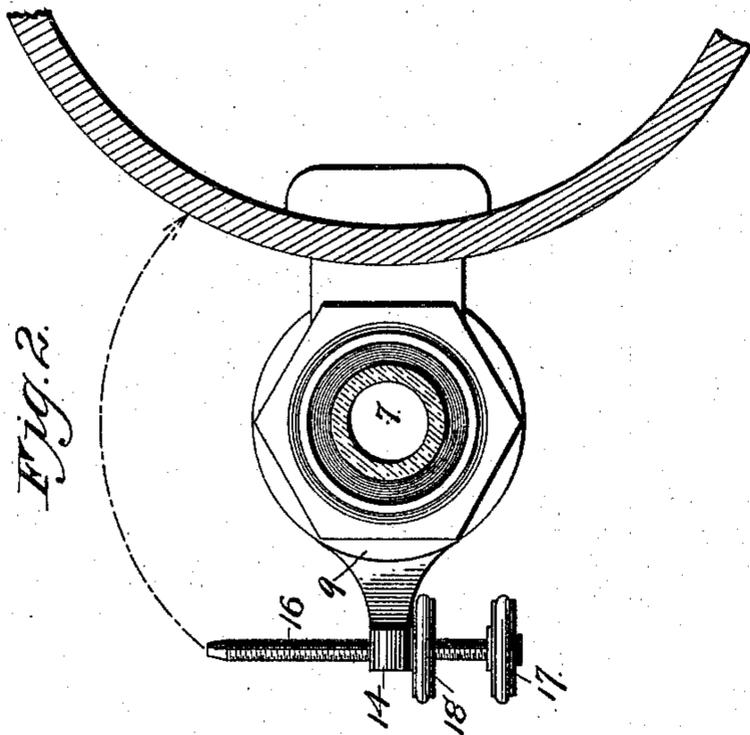


Fig. 2.

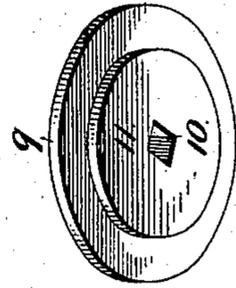


Fig. 3.

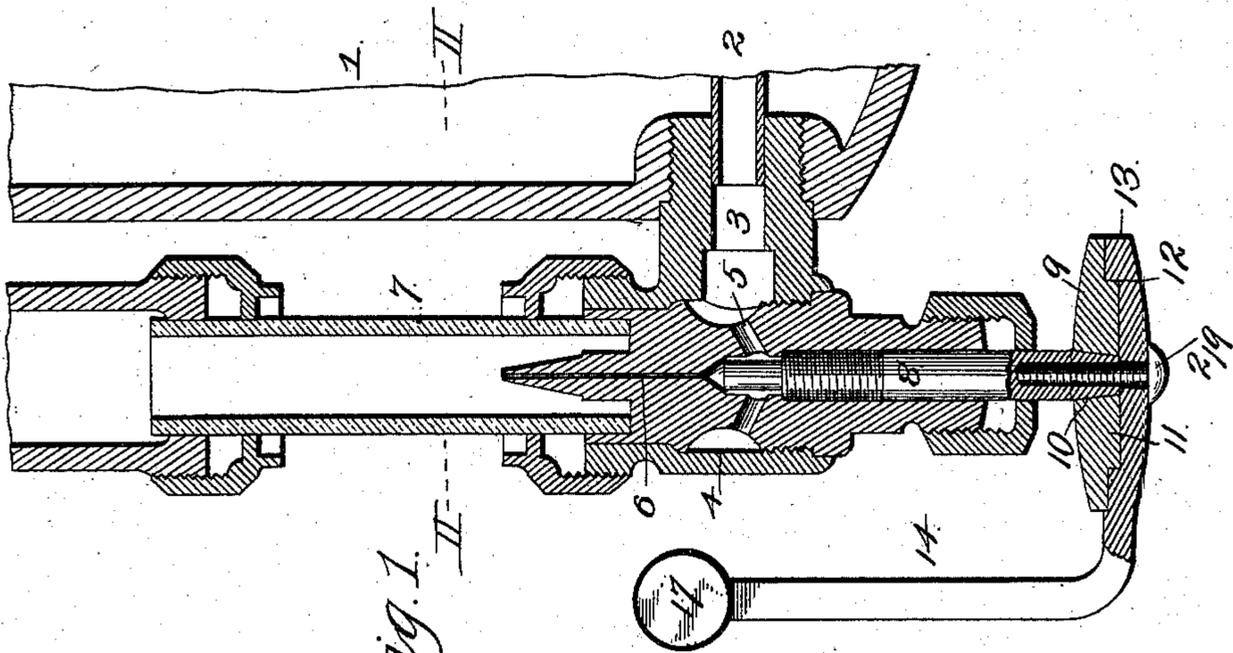
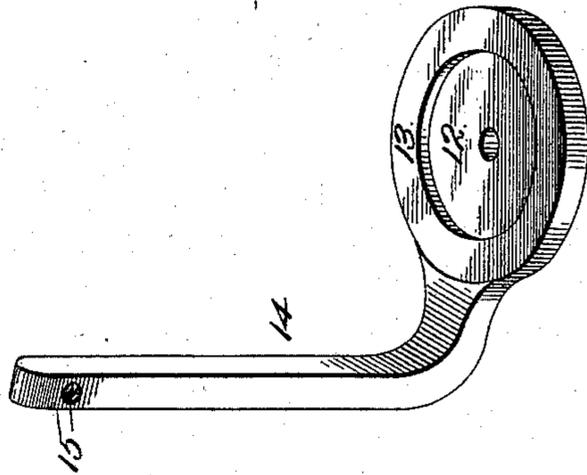


Fig. 1.

Witnesses:

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# UNITED STATES PATENT OFFICE.

GORDON B. MILLER, OF ARGENTINE, KANSAS.

## LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 567,788, dated September 15, 1896.

Application filed June 15, 1896. Serial No. 595,650. (No model.)

*To all whom it may concern:*

Be it known that I, GORDON B. MILLER, of Argentine, Wyandotte county, Kansas, have invented certain new and useful Improvements in Lubricator Feed-Regulators, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to lubricator feed-regulators for steam-engines, particularly locomotives; and it consists in certain novel and peculiar features of construction and combinations of parts, as will be hereinafter described and claimed.

In order that the invention may be fully understood, reference is to be had to the accompanying drawings, wherein—

Figure 1 represents a sectional view of a portion of the feed-regulator embodying my invention. Fig. 2 represents a horizontal section of the same, taken on the line III of Fig. 1. Fig. 3 represents detached perspective views of parts of the attachment.

In the said drawings, 1 represents the oil-cup.

2 designates the oil-pipe within the oil-cup.

3 designates a tubular extension of the valve-casing 4, which screws into the oil-cup and embraces the opposite end of the pipe 2.

5 designates passages which connect the chamber of the casing 4 with the valve-passage proper, 6, and said valve-passage communicates in turn at its upper end with the water glass or tube 7.

8 designates the customary inlet-valve, which controls the passage of oil up through the valve-passage 6.

All of the parts just described are common in sight-feed regulators, and are not claimed *per se* in this application.

My attachment comprises the following elements—that is to say, 9 designates a plate or disk which is provided, preferably, with a squared central opening to engage the correspondingly-formed lower end of the valve-stem, so as to make such parts rigid as regards rotatable movement. Said plate or disk is provided centrally with a circular depending boss or hub 11, which engages a corresponding cavity 12 in the base-plate 13 of the attachment, and said base-plate is provided at one side with an extension or arm 14, which

preferably extends vertically upward adjacent to the valve-casing, but which may be of any other suitable or preferred form or configuration. It is provided with a threaded passage 15, which is engaged by a screw 16, provided at one end with a head or handle 17, whereby it may be adjusted longitudinally through said arm or extension for a purpose which is hereinafter explained, and engaging said screw is a nut 18, which is adapted to abut against the said arm or extension and thereby perform the function of a lock-nut for said screw, so that when once set the screw will not be accidentally adjusted through the arm 14. The plate 13 is preferably clamped firmly against or to the plate 9 by means of a screw 19, which passes up through the central opening in said plate and engages the valve-stem, as shown.

In practice one lock-nut is found to be sufficient, but it is to be understood of course that a second lock-nut may be arranged at the opposite side of said arm or extension, if desired.

As well known, sight-feed regulators are now considered a necessity in all engines or locomotives in order that the quantity of lubricating-oil may be reduced to the minimum for effective work, owing to the fact that this oil is very expensive, and the engineers, as a rule, are allowed only a certain quantity periodically. If they use more than this quantity, they are charged up with it, and if they use less in the endeavor to win a premium or reward they do so, in most cases, at an injury to the locomotive. With such sight-feed regulators the quantity of oil fed is gaged by watching the number of drops of oil which ascend through the water-glass, and the valve, to accomplish this, must obviously be manipulated very carefully. These regulators, therefore, take up a great deal of the engineers' time, and, being more or less a strain upon them, engages their attention at times when it should be given to the running of the locomotive. In other words, by means of these sight-feed regulators, without my attachment or its equivalent, the quantity of oil supplied to an engine at intervals is simply by guess, and varies with every supply.

The importance and advantages of my invention will therefore be apparent at once to those skilled in the art, as after the quan-

tity has been regulated and the screw 17 been properly set with relation to such quantity it requires no more attention from the engineer—that is, whenever the engine is to be lubricated he simply swings the arm 14, together with the valve to which it is rigidly attached, until the end of the screw comes in contact with the side of the cup or some other fixed point, so that with each operation of the valve thus limited the quantity of oil supplied will be the same. If the engine requires more or less oil, the screw 16 is adjusted through the arm or extension 14 to increase or diminish the rotatable operation of the valve, as will be readily understood, and after being so adjusted may be relatively fixed in such position by means of the lock-nut or lock-nuts employed. Thus it is obvious that I have eliminated the sight-feed features from the feed-regulator, which may, therefore, be made without the sight-glass, as the counting of the drops of oil is not required.

It is to be understood, of course, that the extension or arm carrying the adjustable screw or its equivalent may be attached di-

rectly to the end of the valve-stem or may be fixed to the ordinary handle of said stem in any suitable manner, as the precise construction shown is not indispensable.

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

In a lubricator feed-regulator, the combination with an oil-cup, a valve-casing communicating therewith, and a valve controlling the passage of said casing, of a plate fitting upon the lower end of said valve-stem, a screw engaging the stem of the valve, a second plate clamped by said screw against the first-named plate and provided with an arm or extension having a screw-threaded opening, a screw engaging said opening, and a lock-nut engaging said screw, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

GORDON B. MILLER.

Witnesses:

C. SANDUSKY,  
GEO. BUCK.