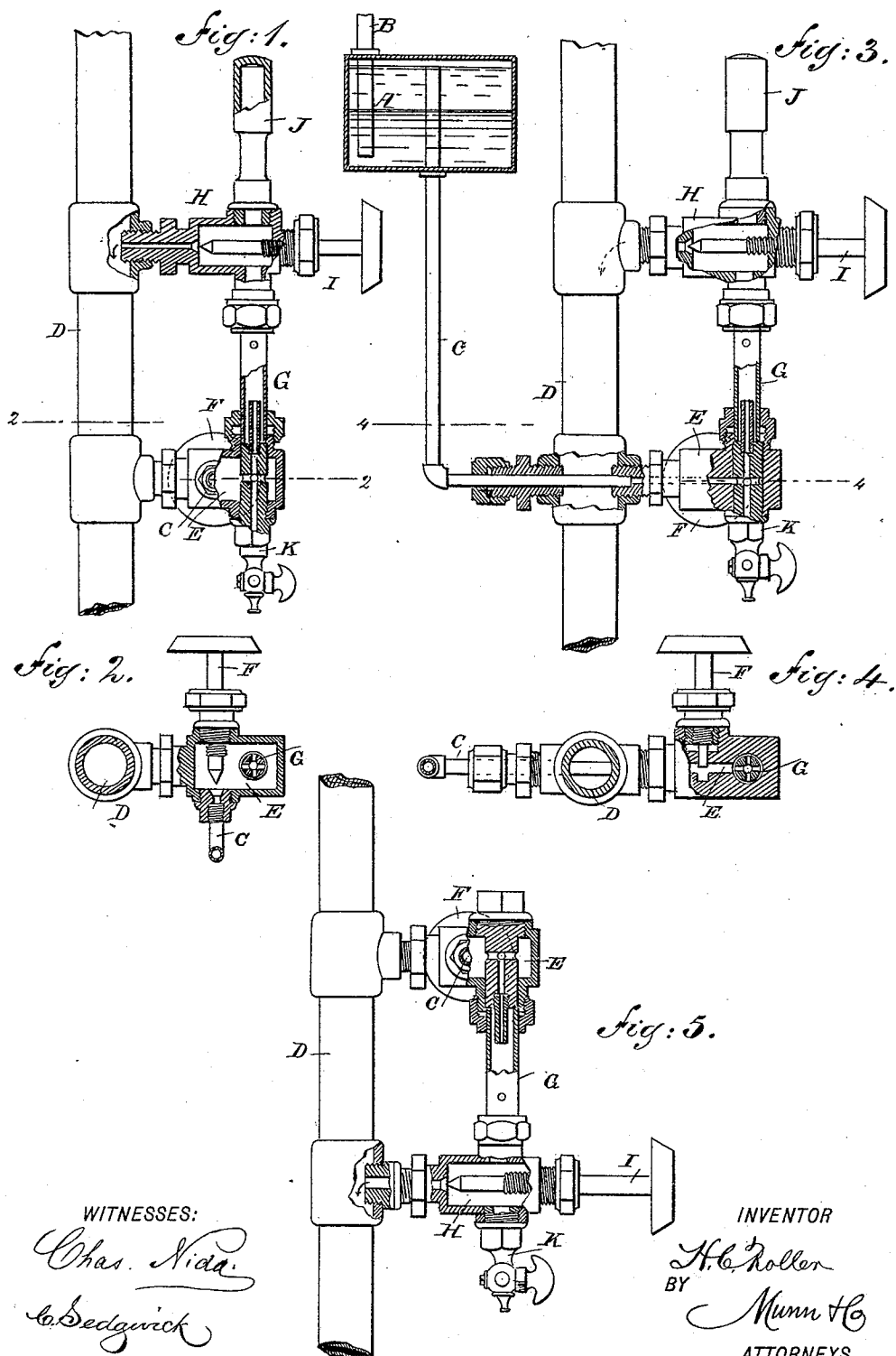


(No Model.)

H. C. ROLLER.  
LUBRICATOR.

No. 499,595.

Patented June 13, 1893.



WITNESSES:

Chas. Nida.  
C. Sedgwick

INVENTOR

H. C. Roller  
BY Munn & Co.  
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

HENRY C. ROLLER, OF NEWARK, NEW JERSEY.

## LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 499,595, dated June 13, 1893.

Application filed January 26, 1893. Serial No. 459,861. (No model.)

### *To all whom it may concern:*

Be it known that I, HENRY C. ROLLER, of Newark, in the county of Essex and State of New Jersey, have invented a new and Improved Lubricator, of which the following is a full, clear, and exact description.

The invention relates to sight feed lubricators, and its object is to provide a new and improved lubricator, which is simple and durable in construction, very effective in operation and arranged for properly feeding any grade or quality of oil in either an up or down direction.

The invention consists of an oil supply tank adapted to contain the oil to be fed under boiler pressure, the said tank being connected with the sight feed tube.

The invention also consists of certain parts and details, and combinations of the same, as will be hereinafter described and then pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the improvement with parts in section. Fig. 2 is a sectional plan view of the same on the line 2—2 of Fig. 1. Fig. 3 is a side elevation of the improvement with parts in section and showing the oil supply pipe passing through the steam pipe for heating the oil. Fig. 4 is a sectional plan view of the same on the line 4—4 of Fig. 3; and Fig. 5 is a side elevation of the improvement with parts in section and arranged for down feed.

The oil tank A is connected by a pipe B with the boiler, so that the oil contained in the said tank A will be in contact with the steam, and, to a certain extent, under the influence of boiler pressure. From this tank A leads an oil supply pipe C to convey the oil to the respective part to be lubricated in the manner hereinafter fully set forth.

The pipe C may be passed through the steam pipe D into which the lubricant is to be discharged, so that the oil is heated, previous to entering the steam pipe. The pipe C connects with a casing E supported from the steam pipe D, and containing a valve F for controlling the amount of lubricant passing

from the pipe C to the casing E. The latter connects with the sight feed tube G also connected with a second casing H discharging into the steam pipe D to be lubricated.

In the casing H is arranged a valve I for controlling the amount of oil and steam passing through the casing H to the pipe D. On top of the casing H is arranged a steam condensing chamber J in which part of the steam can condense to fill the tube G with water of condensation. A drip cock K is arranged on the under side of the casing E and serves to clean the sight feed tube G, the said drip cock being opened for this purpose, so that the steam will pass downward through the casing H, the sight feed tube G and out of the drip cock K. When this is done, the valve F is closed, to shut off the oil supply.

As illustrated in Figs. 1 and 3, the feeding of the oil is in an upward direction and in this case the casing E is below the casing H, but if it is desired to feed the oil in a downward direction then the positions of the casings are reversed, as illustrated in Fig. 5, and the condensing chamber J is omitted. Now, it will be seen that the oil from the tank A is forced into the casing E by the displacement due to the condensation of steam and also, partially, by the pressure of steam, so that the oil rises in drops in the sight feed tube G to finally pass through the casing H and past the valve I into the pipe to convey the lubricant. In the down feed the operation is similar, with the only difference that the oil entering the top casing E under boiler pressure is forced downward through the sight feed tube G to finally pass through the casing H into the steam pipe D.

It will be seen that the casings E and H can be placed any desired distance apart, so as to provide for any desired length of sight feed tube G.

It will further be seen that as the lubricant is under the heavy boiler pressure, any grade of oil can readily be fed, as the oil is forced with considerable pressure through the apparatus without blocking the same, to finally pass into the steam pipe.

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

A lubricator, comprising an oil supply tank,  
a steam-pipe leading thereto from the boiler,  
sight feed tubes, supply pipes connecting the  
said tank and the sight feed tubes, casings  
5 located at the ends of the sight feed tubes and  
connected the one with an oil supply pipe and  
the other with the corresponding lubricant  
conveying steam-pipe, an oil regulating valve  
arranged in the casing connected with the  
10 oil supply pipe, a steam valve arranged in

the other casing, and steam pipes for convey-  
ing the oil from the sight feed tube to the  
parts to be lubricated, the said oil supply  
pipes being passed through the lubricant con-  
veying steam-pipes, substantially as de- 15  
scribed.

HENRY C. ROLLER.

Witnesses:

ROBT. C. GORDON,  
G. R. TRUITT.