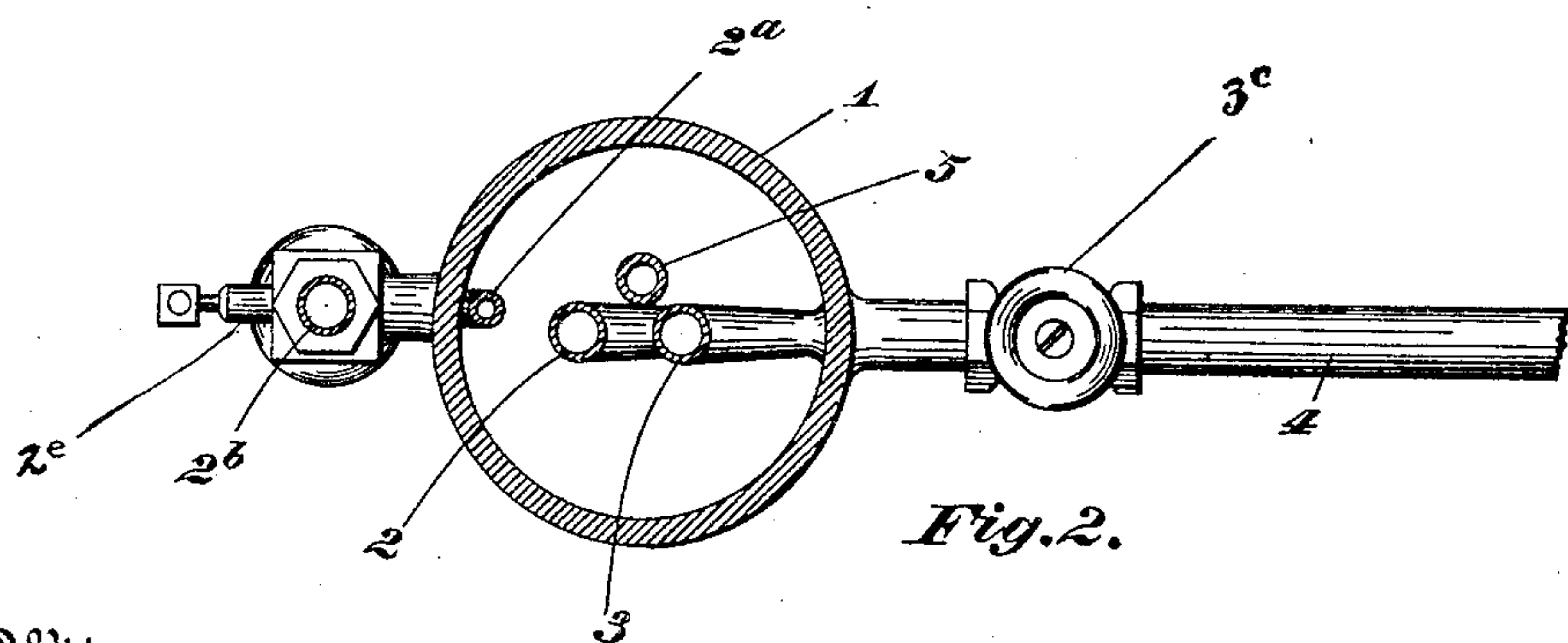
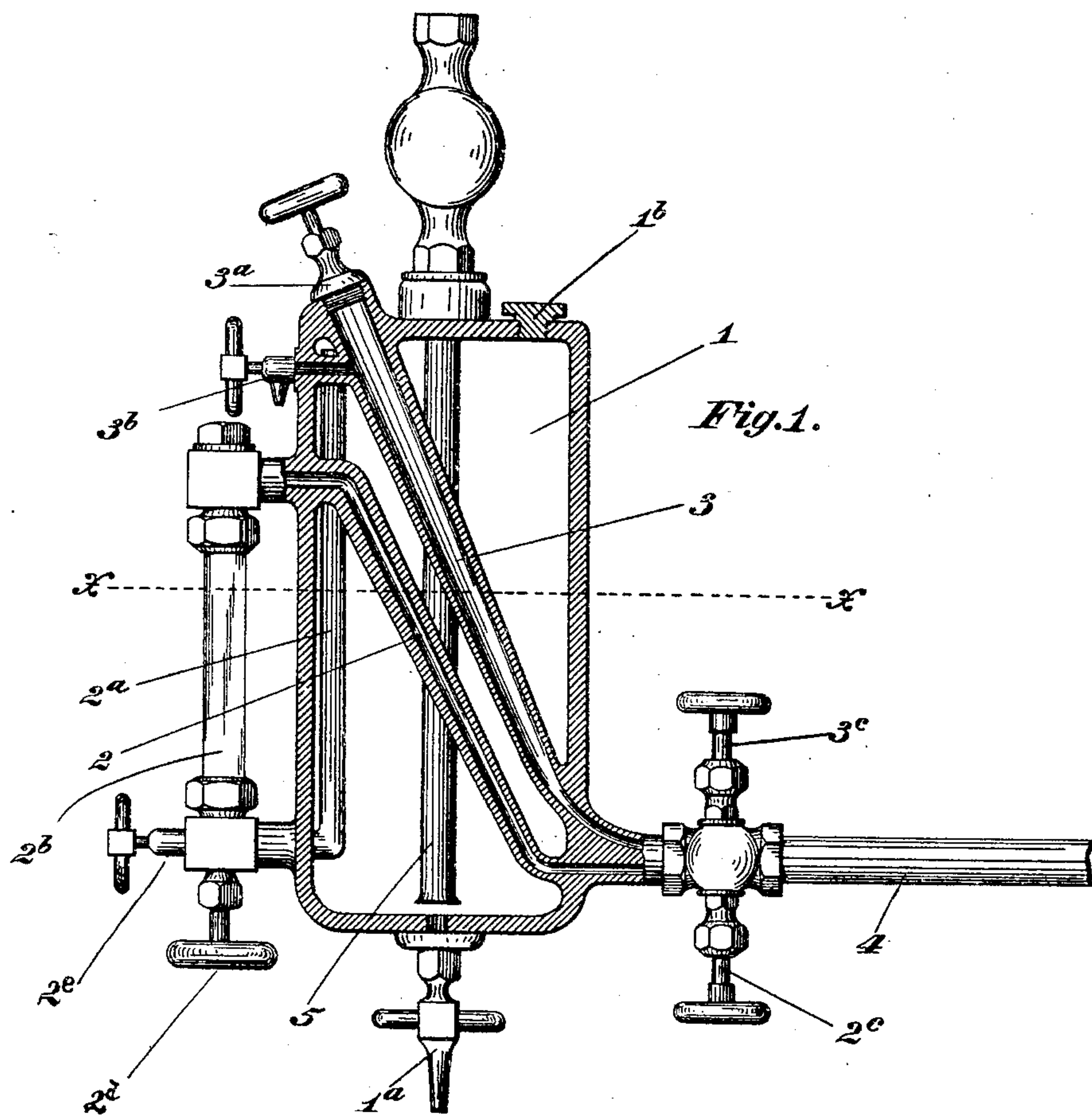


No. 803,370.

PATENTED OCT. 31, 1905.

J. C. SWOYER.  
STEAM HEATED OIL AND GRAPHITE LUBRICATOR.  
APPLICATION FILED NOV. 4, 1904.



Witnesses

*Bey Finckel*  
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his Attorneys



# UNITED STATES PATENT OFFICE.

JOHN C. SWOYER, OF COLUMBUS, OHIO.

## STEAM-HEATED OIL AND GRAPHITE LUBRICATOR.

No. 803,370.

Specification of Letters Patent.

Patented Oct. 31, 1905.

Application filed November 4, 1904. Serial No. 231,374.

*To all whom it may concern:*

Be it known that I, JOHN C. SWOYER, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Steam-Heated Oil and Graphite Lubricators; 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.

Heretofore considerable trouble and loss of time have been occasioned by the congealing or freezing of the water and oil in the reservoirs of lubricators.

The chief object of the present invention is to procure a combined graphite and oil lubricator in which the graphite-chamber is made to efficiently serve as a heater for the oil and water contained in the reservoir.

The invention consists in the construction hereinafter described and claimed.

In the accompanying drawings, in which I have illustrated one embodiment of the invention, Figure 1 is a vertical sectional view, some parts being in full. Fig. 2 is a horizontal sectional view on the line *x x*, Fig. 1.

In the views, 1 indicates the main oil cup or reservoir, which has a capped opening 1<sup>b</sup> through which oil can be supplied thereto. This reservoir contains the oil passage or tube 2 and the graphite passage or tube 3. Each of these tubes has a valve, as seen at 2<sup>c</sup> and 3<sup>c</sup>, respectively, for separately controlling the supply to the pipe 4, that leads to the place to be lubricated—as, for example, the valve of an engine. The oil is supplied to the tube 2 through a tube 2<sup>a</sup>, having its upper open end near the top of the reservoir 1 and its lower end connected with the “sight-tube” 2<sup>b</sup>, the oil in the reservoir being pushed toward the top, where it can flow into the tube 2<sup>a</sup> by the accumulation of water of condensation in the lower portion of the reservoir from steam admitted through the pipe 5. The tube 2<sup>a</sup> is provided with a suitable regulating-valve 2<sup>d</sup>, and the sight or glass tube 2<sup>b</sup> is provided with an appropriate drain-stem 2<sup>e</sup>.

The graphite-passage 3 is provided at its upper end with an opening, closed with a

threaded cap 3<sup>a</sup>, through which opening graphite is supplied, and also with a petcock 3<sup>b</sup>.

In cold weather, when the lubricator is to be kept heated, valve 3<sup>c</sup> of the graphite-tube 3 is opened. The steam-pressure of the boiler, acting through steam-pipe 4, forces live steam into graphite-tube 3. Water of condensation from this steam as it flows to the bottom of the tube by gravity is continually replaced by live steam, thus automatically maintaining the temperature of the whole lubricator. The amount of live steam, and the consequent temperature of the lubricator, can be regulated by the valve 3<sup>c</sup>. If on standing oil in the lubricator has become congealed and it is desired to heat the same very rapidly, the petcock 3<sup>b</sup> is opened, thus allowing live steam to pass through tube 3. The graphite tube or chamber serves not only its primary function of supplying graphite, but also as a heater for the oil-reservoir to keep the oil and water from congealing even in the coldest weather.

The reservoir 1 is provided with a drain-cock 1<sup>a</sup>.

What I claim, and desire to secure by Letters Patent, is—

1. In a lubricator, the combination of the oil-reservoir, an external glass or sight tube thereon, an oil-feeding tube within the body of said reservoir connected with one end and forming a passage with said glass or sight tube, another tube in the body of the reservoir connected with the other end of said glass or sight tube and forming a passage therewith and discharging exteriorly of the reservoir, an independent graphite-passage provided with an external supply-opening and passing through the body of said reservoir and discharging externally thereof, and valves for independently controlling the discharges from said oil and graphite passages.

2. In a lubricator, the combination of the reservoir, an external glass or sight tube thereon, an oil-feeding tube within said reservoir connected with one end of said sight-tube and forming a passage therewith, another tube connected with the other end of said sight-tube and forming a passage therewith and discharging externally of the reservoir, an independent graphite-tube also passing through

the body of the reservoir and provided with  
an external supply-opening and discharging  
externally of the reservoir, a petcock for the  
graphite-passage near the supply-opening  
5 thereof, and valves for independently control-  
ling the discharges of the aforesaid oil and  
graphite passages.

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

JOHN C. SWOYER.

Witnesses:

OLIN J. ROSS,  
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