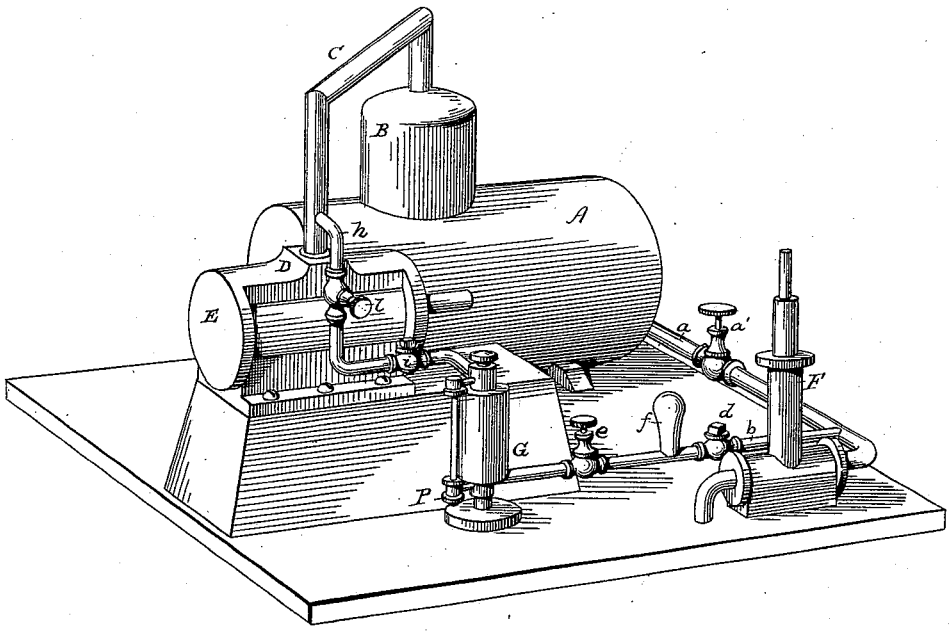
N. SEIBERT.

Steam-Cylinder Lubricator.

No. 208,931. Patented Oct. 15, 1878.



WITNESSES:

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UNITED STATES PATENT OFFICE.

NICHOLAS SEIBERT, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN STEAM-CYLINDER LUBRICATORS.

Specification forming part of Letters Patent No. **208,931**, dated October 15, 1878; application filed April 2, 1878.

To all whom it may concern:

Be it known that I, NICHOLAS SEIBERT, of San Francisco, in the State of California, have invented a new and Improved Method of Feeding a Lubricant to Steam-Cylinders; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing, making a part of this specification, which represents a perspective view of the devices to carry out my method of feeding the lubricant.

The object of my invention is to provide a means of regularly feeding a lubricant to the cylinders and other parts of a steam-engine; and it consists in utilizing, through suitable devices, the impulse of the pump injector or inspirator at each pulsation to throw a given quantity of oil, to be regulated by suitable cocks, into the steam-chest to lubricate the valves and piston.

In order that those skilled in the art may make and use my invention, I will proceed to describe the exact manner in which I have carried it out.

In the said drawing, A represents a steam-boiler provided with the usual steam-dome B and steam-pipe C, conveying the steam to the steam-chest D over the cylinder E.

The usual pump or other water-supplying device F is connected to the water-space of the boiler by pipe *a*, provided with the check-valve *a'*. Between the pump and check-valve *a'*, I tap pipe *a* and insert a pipe, *b*, the other end of which enters the bottom of a cup or tank, G, containing oil or other lubricant. On pipe *b*, between pipe *a* and the oil-cup, I locate a check-valve, *d*, a stop-valve, *e*, and between them an air-chamber, *f*.

Passing from the top of the oil-cup into the steam-pipe, above its juncture with the steam-chest, is an oil-supply pipe, *h*, provided with a check-valve, *i*, and a regulation feed-valve, *l*. The bottom of the oil-cup is supplied with a cock or waste-valve, P, to withdraw the water when all the oil is out of the cup, and a suitable removable cap is constructed on the top of the cup, which allows the introduction of a new supply of oil.

The operation is as follows: The oil-tank is filled with oil. When the pump injector or inspirator is put in motion to feed the boiler with water, the water will be forced into pipe *b*, and the check-valve *a'* will hold it, and at the same time the air in chamber *f* is compressed by the water. Then open valves *e* and *l*, and the pressure from chamber *f* will force a portion of the water into tank G, and the same amount of oil out of the oil-tank through pipe *h*, and into the steam-pipe, where it is sprayed, and enters the valve-chest and cylinder commingled with the steam. The steam-pressure through pipe *h* being at an equilibrium, the pressure stored in air-chamber *f*, by means of the back-pressure in pipe *a*, caused by the weight of check-valve *a'*, or by the momentum of water being forced into pipe *a* by injector or inspirator, will overcome that equilibrium in favor of pipe *h*, and force the oil through pipe *h* against the pressure of steam into steam-pipe C.

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

1. The improved method of feeding lubricants to steam-cylinders, consisting in feeding the lubricant through the means of the pulsation of the water-feeding device for the boiler.

2. Boiler A, cylinder E, steam-chest D, pump F, and feed-pipe *a*, in combination with oil-tank G, pipe *b*, provided with valves *e d* and air-chamber *f*, and pipe *h*, provided with valves *i l*, all constructed and operated substantially as set forth.

NICHOLAS SEIBERT.

Witnesses:

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