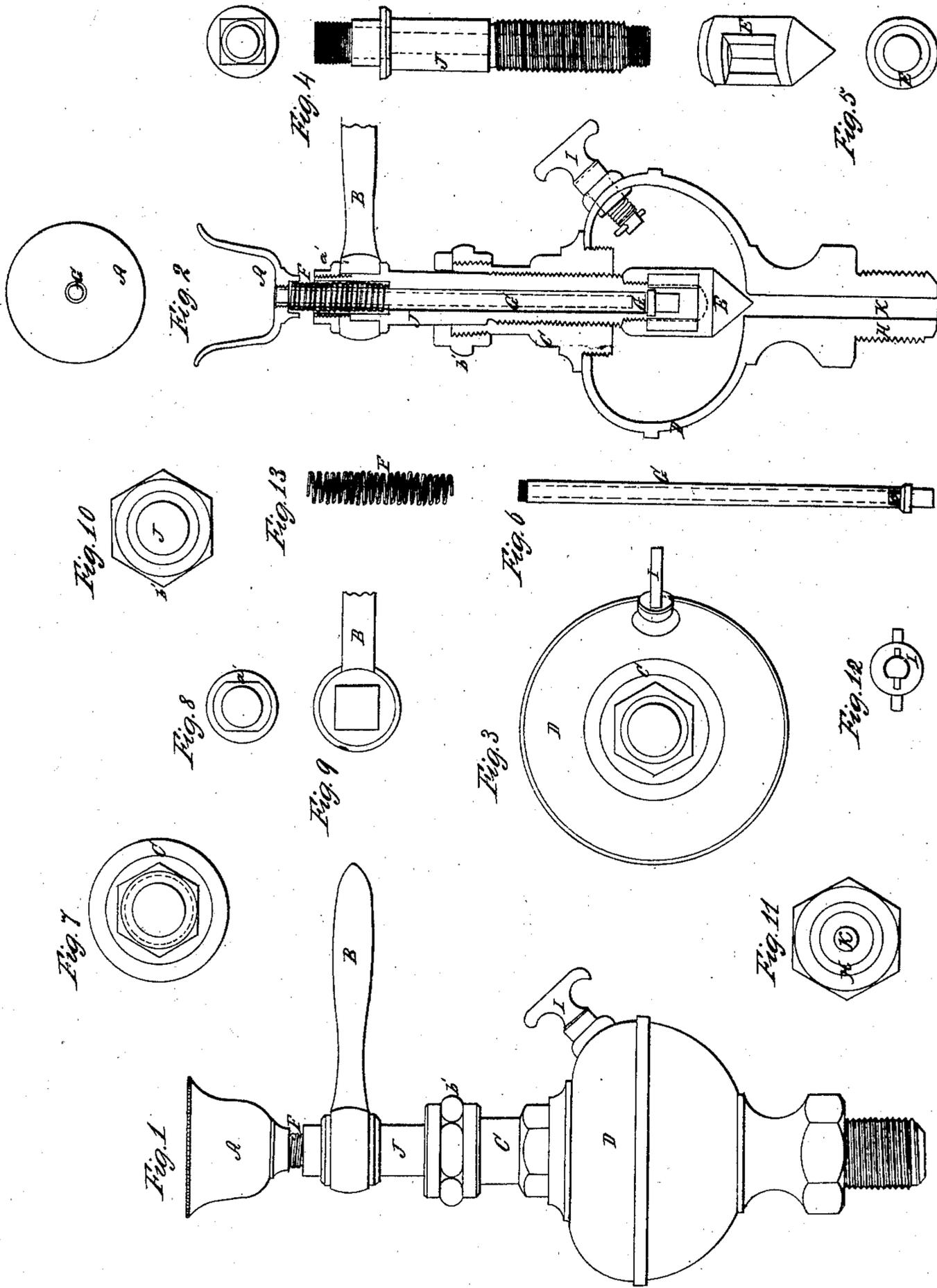


E Clampitt,

Lubricator.

N^o 21,816.

Patented Oct. 19, 1858.



UNITED STATES PATENT OFFICE.

ELIAS CLAMPITT, OF BALTIMORE, MARYLAND.

LUBRICATOR.

Specification of Letters Patent No. 21,816, dated October 19, 1858.

To all whom it may concern:

Be it known that I, ELIAS CLAMPITT, of the city of Baltimore, in the State of Maryland, have invented a new and Improved Valve for Lubricators Attached to Steam-Engines; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon.

The nature of my invention consists in supplying lubricating matter to steam cylinders, chests, &c. when it is required under a pressure of steam, by means of a valve, which opens upon a downward pressure upon the cup, and closes itself by means of a spiral spring, when said pressure is removed.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I construct my lubricator in any of the usual shapes. My valve E, is situated at the bottom of the reservoir D, with its lower portion pointed, in form of an inverted cone, the upper part being a hollow cylinder, with two sides open, at opposite points, for the passage of the lubricating matter into the reservoir, as shown on section Figure 2, and Fig. 5, a main hollow stem or shaft J, Fig. 4 and section Fig. 2, with its lower end wormed to screw into the head of valve E, is constructed, with the hollow sufficiently large to receive a hollow tube G, Fig. 6 and section Fig. 2, which passes through stem J, from valve E, and is screwed into cup A, at top: Said stem J, is also wormed above its connection with valve E, to screw into reservoir cap C, and also at its upper extremity, to receive cap a' , Figs. 1, 2, and 8.: Just below cap a' , said stem J, is squared for the reception of lever B, and immediately beneath said squared part a flange is turned as a support for lever B.: As a spiral spring surrounds hollow tube G, at its upper portion, the hollow of stem J, is enlarged from its upper extremity down to the lower side of said flange, as a receptacle or seat for said spiral spring, being about one inch in depth. The hollow tube G, Figs. 2 and 6, is about $\frac{1}{4}$ inch in diameter, its upper extremity terminating with a screw, to secure it into cup A.: The lower end is solid about $\frac{3}{8}$ inch up, terminating in a flange;

at the lower extremity of the hollow, and just above said flange is an opening C' , on both sides about $\frac{3}{16}$ inch high, for the escape of the lubricating matter through the openings of valve E, into reservoir D. A spiral spring F, Figs. 2 and 13, surrounds the upper portion of hollow tube G, its greatest length being inserted in the enlarged hollow at the upper end of stem J, its upper end inserted in a hollow seat at the bottom of cup A. Reservoir cap C, Figs. 1, 2, 3 and 7, is wormed at its lower extremity, on the outside surface, to screw into the head of reservoir D, with a flange turned immediately above; a short neck rises above said flange, for the purpose of packing, and terminates with a screw thread on its outside surface for the reception of nut b' , Figs. 1, 2 and 10.: The inside of cap C, is also wormed to receive main stem J, which is screwed into it. Near the top of reservoir D, on one side, I insert an air cock, or screw I, Figs. 1, 2, 3 and 10, in an opening provided for the purpose, beveled on the outside, and fortified by an additional thickness of metal surrounding the opening, on both sides: Said air cock or screw I, is wormed with the usual screw thread; and one or more sides flattened or filed off: The shoulder or flange being beveled downward, when screwed down fits into the beveled opening, and when unscrewed, from its peculiar construction, allows the gas or air to escape, acting as a valve for that purpose. Reservoir D, has an opening or channel K, from the bottom, where valve E, is situated, passing through the neck H, to the portion of the engine desired.

In using this lubricator, the hollow tube G, is inserted into the lower end of shaft J, and passed up until the flange or valve immediately below opening c' , bears against the bottom of shaft J. Reservoir cap C, is then screwed on to shaft J, the packing having been attended to; valve E, is then screwed on shaft J; the spiral spring F, is then inserted into its place, lever B, is put on the square of shaft J, cap a' , screwed on, and tube G, screwed into cup A.: The spiral spring F, raises the bottom of cup A, about $\frac{3}{16}$ inch above the top of cap a' , allowing that space for compressing spring F, (the size of opening c' .): The cap C, is then screwed into its place in the top of reservoir

D. When lubricating matter is desired to flow into the engine, it is only necessary to press upon the cup A, by the oil can or otherwise, the spring F, contracts, the openings *c'*, in shaft G, are brought below the upper part of the openings in valve E, and the lubricating matter is discharged into reservoir D: When the pressure on the cup is removed, the spring F, expands, and the flange of openings *c'*, is pressed hard against the lower end of shaft J, and the communication from cup A, is cut off. By a turn of lever B, the valve E, is raised above the bottom of reservoir D, and the lubricating matter passes through channel K, into the cylinder, &c.

What I claim as my invention; and desire to secure by Letters Patent, is—

The peculiar construction of my valve E, and the introduction of hollow tube G, into stem J, (in connection with valve E,) with its openings *c'*, and flange below, acting as a valve against the lower end of shaft J, supplied with a spiral spring F, at top, producing thereby a self acting valve when the pressure on cup A, is removed, as before described.

ELIAS CLAMPITT.

Witnesses:

CHARLES S. BRUFF,
JAMES GARLAND.