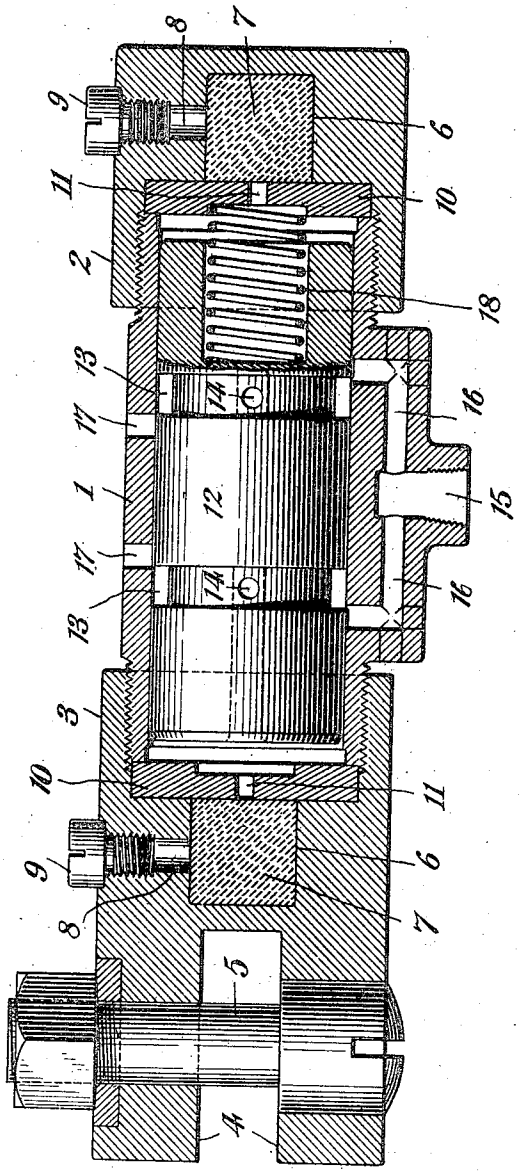
No. 841,162. PATENTED JAN. 15, 1907.

W. LEWIS.

LUBRICATOR FOR PNEUMATIC ENGINES.

APPLICATION FILED SEPT. 20, 1904.



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILFRED LEWIS, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO TABOR MANUFACTURING COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF NEW JERSEY.

LUBRICATOR FOR PNEUMATIC ENGINES.

No. 841,162. Specification of Letters Patent. Patented Jan. 15, 1907.

Application filed September 20, 1904. Serial No. 225,279.

To all whom it may concern:

Be it known that I, WILFRED LEWIS, a citizen of the United States, and a resident of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a certain new and useful Improvement in Lubricators for Pneumatic Engines, of which the following is a specification.

This invention relates to lubricating devices for pneumatic engines, as hammers, "vibrators" for use in mold-making, &c.

The object of the invention is to provide a simple, durable, and efficient means for lubricating the reciprocatory piston of such engines.

To the ends thereof the invention consists of features of construction and combinations of devices hereinafter described, and more particularly pointed out in the appended claims.

The preferred form of the invention is illustrated in the accompanying drawing, forming part hereof, in which—

The reference 1 marks the barrel, and 2 3 the heads or ends of the cylinder, which are connected by screw-threads or in other suitable manner.

4 marks jaws on the head 3, whereby the "vibrator-engine" shown may be attached by a bolt and nut 5 to a pattern, pattern support or carrier, or other part which it is desired to vibrate or actuate.

6 represents recesses in the heads 2 3, which are filled with felt or other absorbent 7, and 8 represents passages through the heads 2 3, whereby the lubricant may be introduced. 9 represents screw-plugs for closing said oil-holes 8.

The reference 10 marks metal plates or disks provided with central perforations 11 therein, said disks being seated against the heads 2 3 and being held in place by the barrel 1 and the heads 2 3, as shown.

12 is a piston or hammer fitting and moving in the barrel 1 and provided with circumferential grooves 13, which communicate with the ends of the piston 12 through axial and transverse holes 14, one groove 13 with one end and the other groove with the other end of the piston.

15 is the supply-port, which communicates with the interior of the barrel 1 through the passages 16.

17 represents exhaust-ports.

The pressure and exhaust ports 16 and 17 are so located with relation to each other and the grooves 13 that the piston is driven back and forth automatically, as usual.

The reference 18 marks a spring which is set in a cavity in one end of the piston 12 and in a recess in the front face of the plate or disk 10. The spring 18 is tensioned to push the piston 12 to the far end of its stroke, whereby it is normally in a given or starting position.

In the operation of the engine the piston is driven back and forth automatically and strikes against the disks 10, and the oil or lubricant is forced through the foraminous disks 10 into the cylinder 1 and lubricates the piston automatically while it is in operation. The lubricant may be introduced when there is no air-pressure on in the engine through the holes 8, as will be understood.

The invention may be used in pneumatic engines employed for purposes other than vibrating a pattern in mold-making. Also it may be used at but one end of the engine, if so desired.

I do not limit myself to the precise form of the invention shown in the drawing and above described, since details may be varied without departing from the spirit of my invention.

What is claimed as new is—

1. In a pneumatic engine, the combination with the barrel thereof, of an end closure provided with a recess in line with the opening of said cylinder or barrel and opening toward or inward of said barrel, a lubricant-absorbent in said recess, and a perforated cover for said recess with a free piston in said barrel which strikes said cover.

2. In a pneumatic engine, the combination with the barrel thereof, of an end closure thereon and provided with a recess in line with the opening of said barrel and opening inward of said barrel, a lubricant-absorbent in said recess, and a perforated plate covering said recess and held in place by the barrel

and end closure with a free piston in said barrel which strikes against the said cover.

3. In a pneumatic engine, the combination with the cylinder and its piston, of a lubricant-holder having a foraminous cover against which the piston strikes.

Signed at Philadelphia, in the county of Philadelphia and State of Pennsylvania, this 2d day of March, A. D. 1904.

WILFRED LEWIS.

Witnesses:
R. S. McCarter,
Alvin P. McCarter.