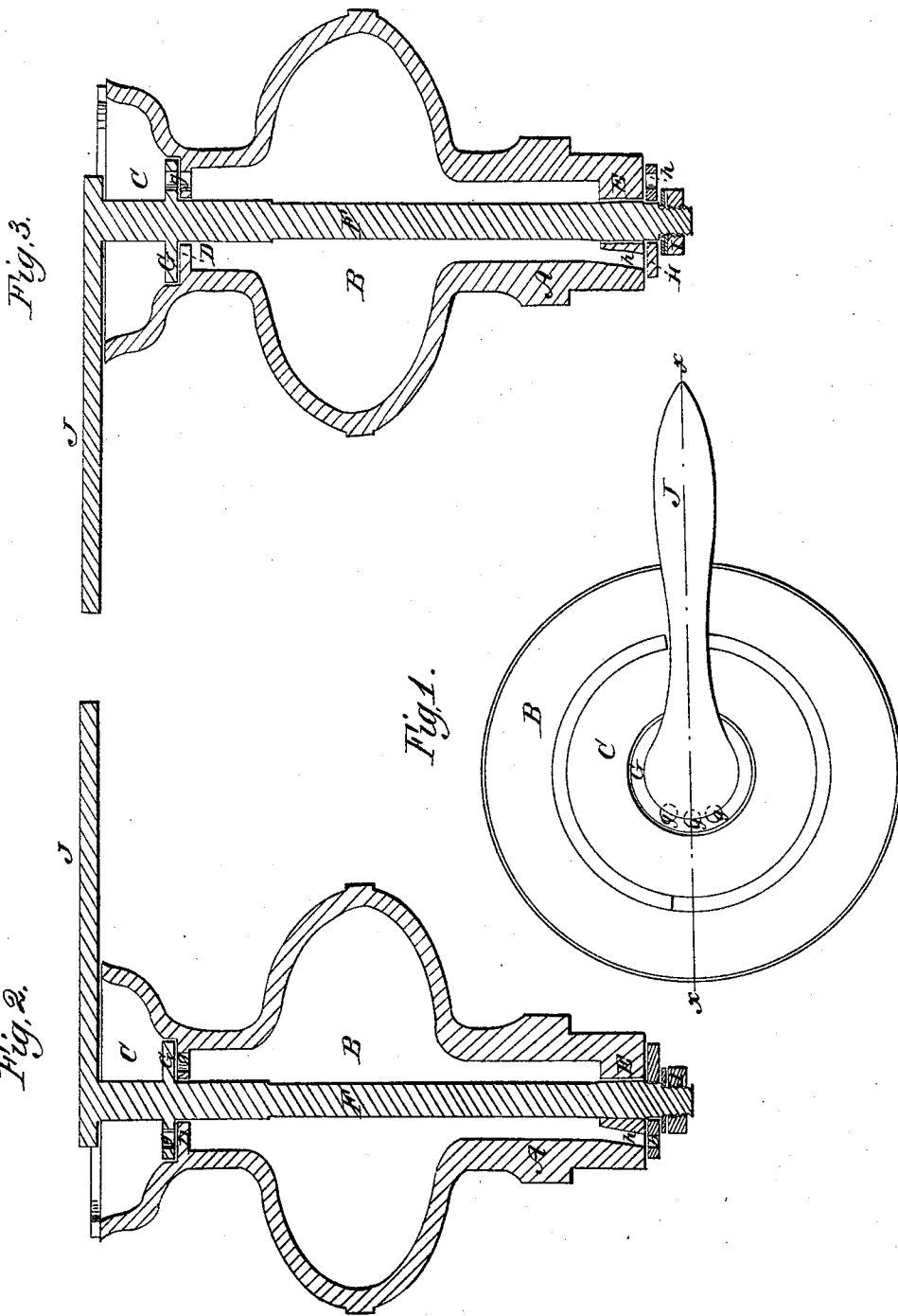


S. H. Whitmore,

Lubricator.

N^o 20,674.

Patented June 22, 1858.



UNITED STATES PATENT OFFICE.

S. H. WHITMORE, OF CINCINNATI, OHIO.

OIL-CUP FOR LUBRICATING ENGINES.

Specification of Letters Patent No. 20,674, dated June 22, 1858.

To all whom it may concern:

Be it known that I, SETH H. WHITMORE, of Cincinnati, Hamilton county, Ohio, have invented a new and useful Improvement in Oil-Globes for Lubricating the Pistons of Steam-Engines; and I hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawing, making part of this specification.

In this improvement the valves are arranged on the exterior of the globe and are mounted on a single axial stem so as to be operated simultaneously and kept to their seats with a force corresponding to that of the steam.

In the accompanying drawing Figure 1 is a top view of the apparatus. Figs. 2 and 3 are axial sections at *x x* Fig. 1, representing the different positions of the valves.

The foot A, bulb B, and cup C, may be of a single piece of brass, having the familiar external form here represented. The bulb should be a very flat spheroid with walls just thick enough for strength.

D, E, are two floors or diaphragms. F, is an axial stem capable of being partially rotated by means of a lever J, and provided with two collars G, H, which fit respectively the top of the upper floor and the bottom of the lower floor, the collars occupying the relation of valves and the floors that of valve seats. One collar (G) may be forged solid to the stem F. The other having a square eye is secured to a squared portion of the stem by a nut I.

The valve and its seat in each instance are pierced with corresponding apertures *g*, *h*, so that in one position there shall be a free communication through the upper valve

while the lower valve is closed, and vice versa on the semi rotation of the stem F.

The object of placing the valves on opposite sides and outside their respective seats is that any increase of steam pressure shall be accompanied by an increased pressure of the seats against the valves; the expansion of the bulb by heat resulting in a tendency to spherical form which, being opposed by the valves on the stem, causes an increased pressure between the valves and the seats and thus affords an effectual remedy for the liability to leak at these places so common with oil globes now in use. This form also enables the "brass" to be in a single casting, having the ground seats all external. It is recommended to make two or more holes in each valve that the steam may escape at one place while the oil descends at another. The valves may be either flat or conical. If preferred the stem may be passed up from below, the fast collar being at the lower end and the loose collar and nut at the upper end.

The above is believed to be cheaper, more compact and less liable to derangement than any other fully tested and efficacious oil globe yet made public.

I claim as new and of my invention—

The combined arrangement of the external valves G, and H, mounted on a central stem F, and operating as described in connection with the globe A B C D E.

In testimony of which invention I hereunto set my hand.

S. H. WHITMORE.

Attest:

GEO. H. KNIGHT,
C. STEENER.