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John L. Whipple & Adolphus Bonzano Imp^r Lubricator

PATENTED

DEC 31 1867

Fig 1

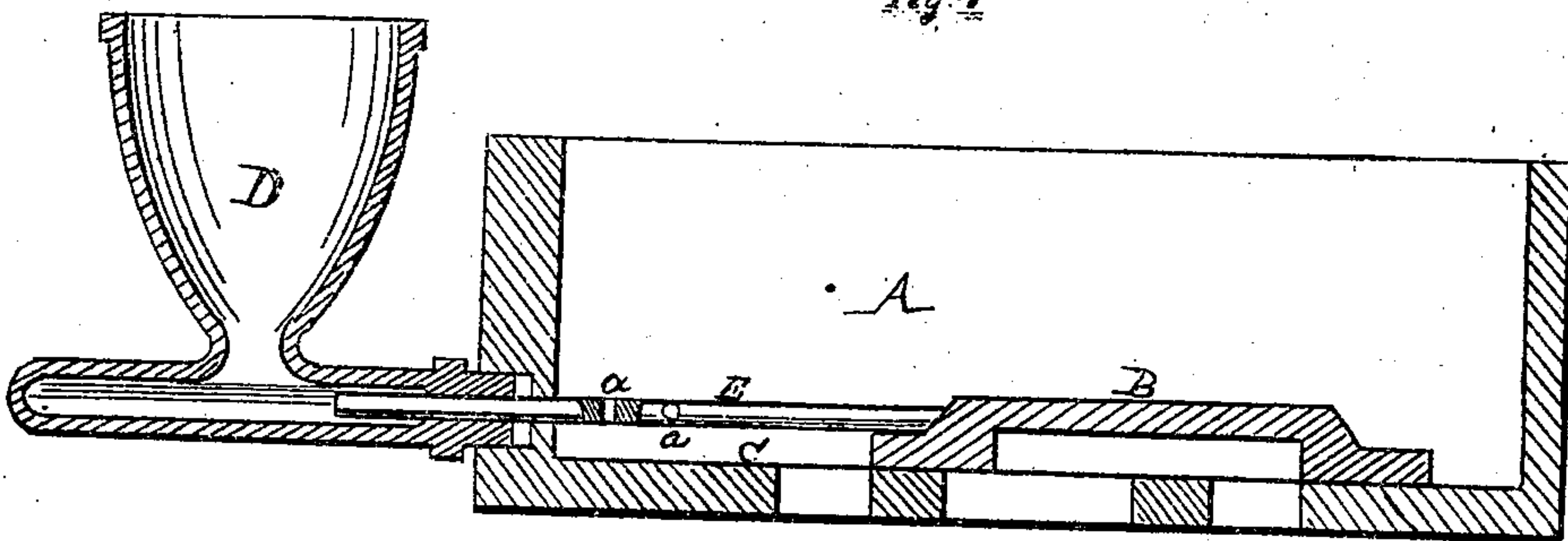
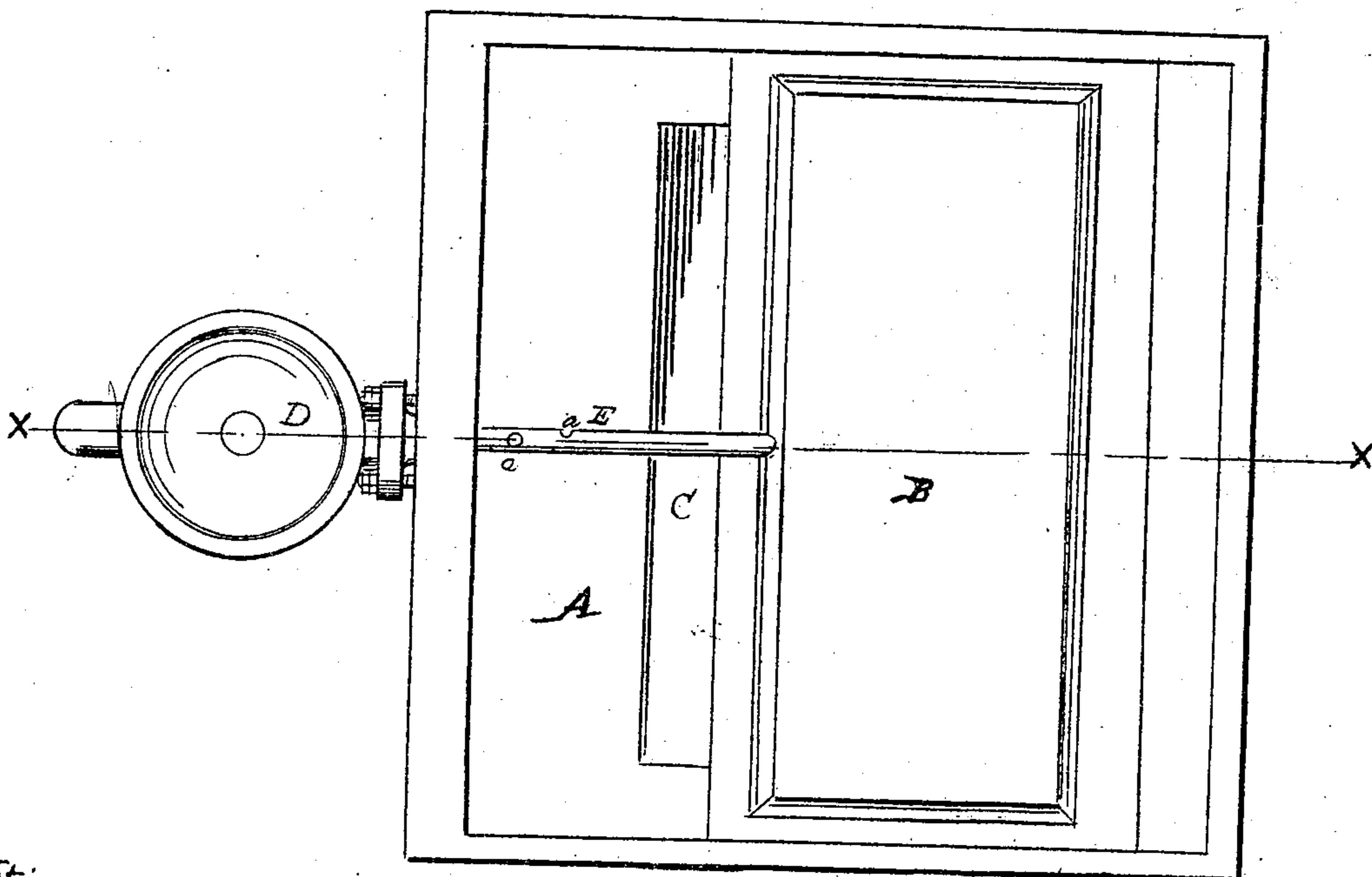


Fig: 2



Witnesses
Theo. Trusche
Wm. Spurn

Inventor
John L. Whipple
Adolphus Bonzano
Per [Signature]

United States Patent Office.

JOHN L. WHIPPLE AND ADOLPHUS BONZANO, OF DETROIT, MICHIGAN.

Letters Patent No. 72,952, dated December 31, 1867.

IMPROVEMENT IN STEAM-ENGINE LUBRICATORS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, JOHN L. WHIPPLE and ADOLPHUS BONZANO, of Detroit, in the county of Wayne, and State of Michigan, have invented a new and improved Lubricator; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings forming part of this specification.

This invention relates to a new and improved method for lubricating slide-valves, cylinders, lift-rod, and wearing-surfaces in other situations; and it consists in attaching to a slide-valve, or other reciprocating portion of a machine, a rod, which shall have access to oil (or other lubricating material) in a suitable stationary cup or containing-vessel, whereby the oil is withdrawn from the cup and deposited upon the wearing-surfaces, as will be hereinafter described. The drawing—

Figure 1, represents the oil-cup and rod attached to the slide-valve of a steam-engine, it being a vertical section through the line *x x* of fig. 2.

Figure 2 is a plan or top view of the same.

Similar letters of reference indicate like parts.

A represents a steam-chest; B is the slide-valve, C is the face of the cylinder, D is the oil-cup, and E is the lubricating-rod. In this example of our invention, the oil-cup and rod are represented as attached to the slide-valve of a horizontal engine. This, of course, requires a different formation for the base of the cup than where the rod is applied to upright engines, or vertical bearing-surfaces. In the former case a tube, lying parallel with the face of the cylinder, forms the base of the cup, as represented in the drawing. In the latter case the lubricating-rod E may enter the cup itself. The oil-cup, in the case represented, is attached to the steam-chest by a tight and permanent joint. In the lubricating-rod there may be a hole or holes, which may pass through or partially through the rod, as seen at *a*. When the rod is in motion, these holes or cavities fill with oil, as this portion of the rod is passed into the oil-tube or cup, and when the rod is withdrawn, the oil is deposited within the chest, and upon the wearing-surface. The rod may work loose enough to withdraw the required quantity of oil without any hole or indentation whatever. When the arrangement is applied to cylinders, either horizontal or upright, the rod E would work through the cylinder-head.

We are aware of the patent granted to R. Rafael, September 12, 1865, for boiler-feeder, but as this forms no part of our invention, we do not, therefore, claim it.

What we claim as new, and desire to secure by Letters Patent, is—

The combination of the perforated or indented rod E and oil-cup D with the cylinder A and slide-valve B, substantially as described for the purpose specified.

JOHN L. WHIPPLE,
ADOLPHUS BONZANO.

Witnesses:

ERNST PURRUCKER,
WM. H. LITTLETON.