(No Model.)

C. W. BOOTH & T. BRABSON.

OILER.

No. 368,183. Patented Aug. 16, 1887.

Fig. 1.

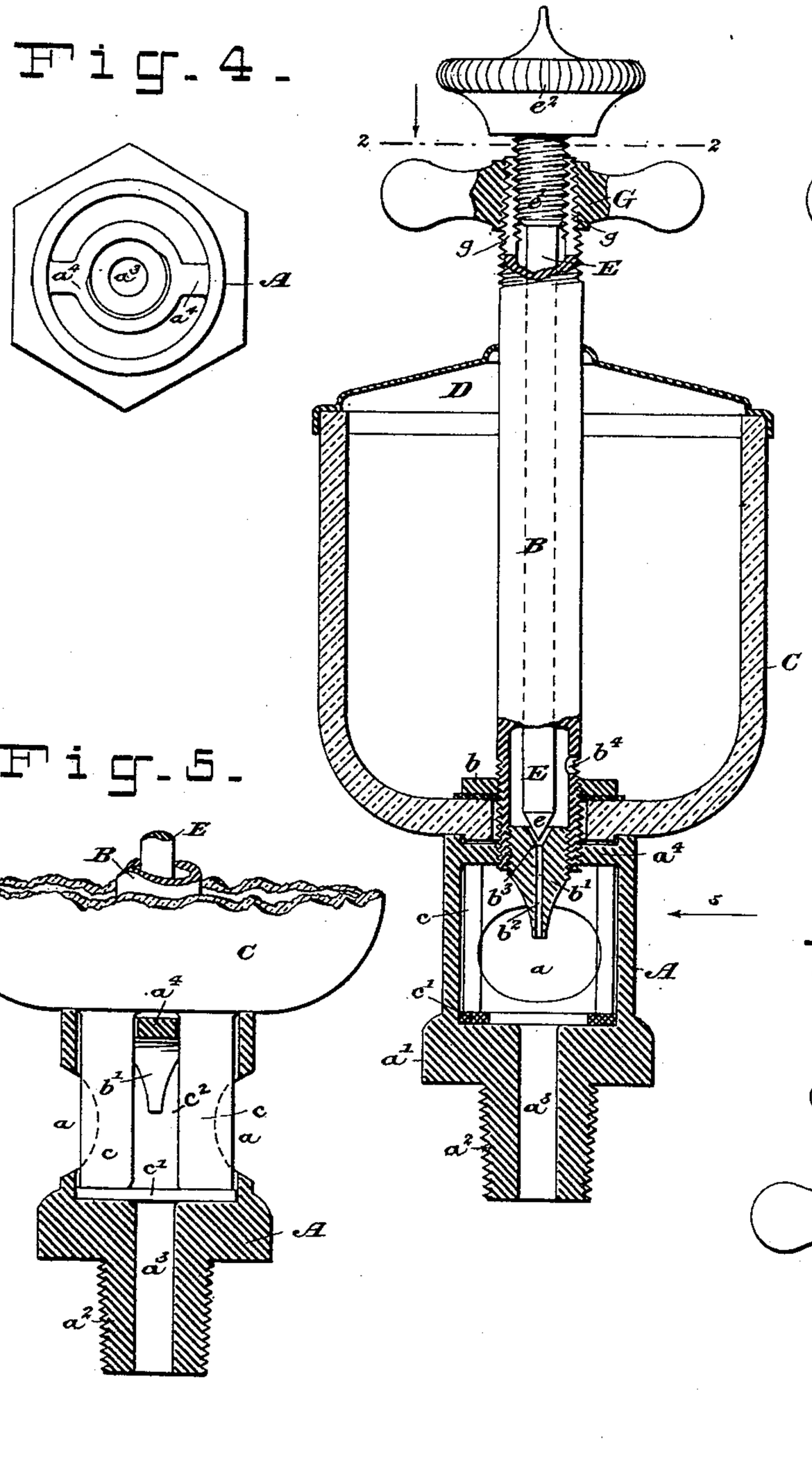


Fig. 2.

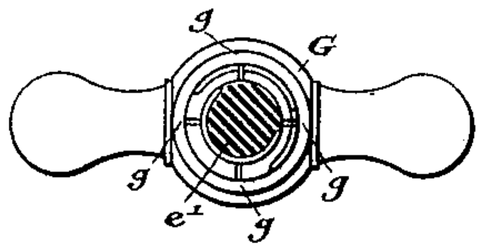
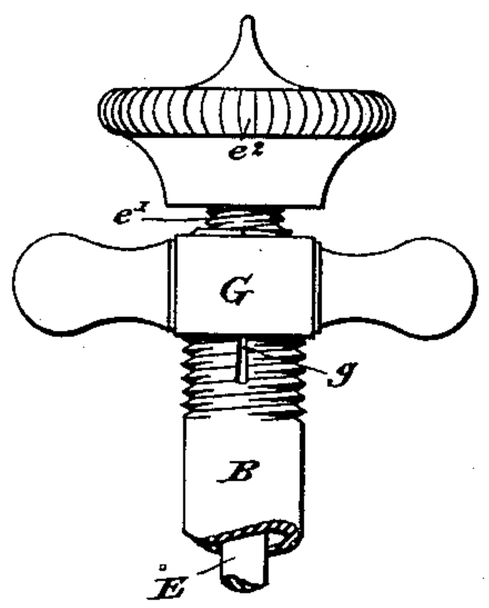


Fig. 4.

Fig. 5.

Fig. 3.



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UNITED STATES PATENT OFFICE.

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OILER.

SPECIFICATION forming part of Letters Patent No. 368,183, dated August 16, 1887.

Application filed December 28, 1886. Serial No. 222,811. (No model.)

To all whom it may concern:

Be it known that we, CONSTANT W. BOOTH and TOM BRABSON, both citizens of the United States, and residents of Brooklyn, Kings county, New York, have jointly invented certain Improvements in Oilers or Lubricators, of which the following is a specification.

Our invention relates to that class of oilers which have a visible feed, the said feed being regulated by a valve on a screw-spindle. In these oilers it is important that when the feed has been once regulated and the valve properly set the screw-spindle of the valve shall be locked or held against turning in order to avoid accidental displacement of the valve from any cause. The devices employed heretofore for locking the screw-spindle of the valve in this class of oilers have been open to many objections. They are comparatively expensive, not easy to manipulate, and not always reliable.

The object of our invention is to provide oilers of this class with a cheap, simple, durable, and efficient means for locking fast the valve-spindle thereof when the valve has once been set.

Another object of the invention is to improve the glass reservoir and its metallic holder.

Our invention will be hereinafter fully described, and its novel features carefully defined in the claims.

In the accompanying drawings, wherein our invention is illustrated, Figure 1 is a vertical axial section of an oiler to which our invention appertains, and which is provided with our improvements. In this view the middle part of the tubular oiler-stem is the only part shown in elevation. Fig. 2 is a horizontal section taken in the plane indicated by line 2 2 in Fig. 1. Fig. 3 is a side elevation of the upper portion of the oiler, showing the clamping device, which is seen in section in Fig. 1. Fig. 4 is a plan of the metallic base of the oiler in which the glass reservoir is mounted. The reservoir and oiler-stem are omitted from this view. Fig. 5 is a sectional elevation of the lower portion of the oiler, showing the stem of the glass reservoir in elevation, as seen from the direction indicated by arrow 5 in Fig. 1. The metal base of the oiler is in section. In this view to avoid confusion we have not represented the parts covered by the glass, although they would in fact be seen more or less clearly through this transparent medium.

A is the metal base of the oiler, which is in the form of a cup provided with sight-holes *a a*, formed in its opposite walls, with a polygonal part, *a'*, to receive a wrench, and a male screw or "spud," a^2, to screw into the bearing-cap or other part in which the oiler is to be mounted. This spud has an axial oil-passage, a^3, as usual in this class of oilers. In the upper part of this base A is formed a bridge, a^4, enlarged at the center to receive the tubular oiler-stem B, which is screwed into said bridge.

C is the glass reservoir, which is provided, as usual, with an aperture in the bottom for the passage of the stem B, and which is also provided with a tubular stem, *c*, which projects down into the hollow of the base A, and may rest on a leather or rubber cushion-ring, *c'*, in the bottom of the hollow base. This stem *c* has slits c^2, (seen best in Fig. 5,) to enable it to be entered, said slots providing a way for the bridge a^4 at each side of the stem B.

The function of the tubular glass stem *c* is in part to glaze the apertures *a a*, and in part to provide a hold or seat for the reservoir in the base A. The reservoir is held down firmly in place by means of a nut, *b*, screwed onto stem B. Thus the nut clamps the reservoir down firmly on the base A. In the lower end of the stem B is secured the usual nipple *b'*, in which is formed a slender oil-passage, b^2, and a conical valve-seat, b^3.

D is the cover of the oil-reservoir C, which may be of sheet metal and of the ordinary form.

The oil from the reservoir C enters tube B at a hole, b^4, and drips drop by drop from passage b^2 in the nipple down into passage a^3, whence it finds its way to the surface to be lubricated. This outflow or feed of the oil is regulated by a conical valve, *e*, on the lower end of a valve-spindle, E, which latter is provided at its upper end with a male screw, *e'*, which screws into a female screw on the upper end of the stem B. The valve-spindle E is provided with a milled head or knob, e^2. The construction of the nipple, the valve-spin-

dle, and the valve does not differ from that found in many oilers of this character.

We will now describe our novel means of locking the valve-spindle E, premising that, as before stated, other means have before been employed to effect this.

In order to lock the valve-spindle against rotation we form a male screw-thread on the upper end of the tubular stem B of the oiler, and slit the said tube down a little way by cross-kerfing it. That is to say, we form two or more slits, *g g*, therein—usually four. We then provide a wing-nut, G, with a slightly-tapered or conical aperture therein, and cut a female screw in said nut with a thread to fit the male screw on the stem. When nut G is screwed onto the slitted end of the tubular stem B, the effect is to cause the segments of the slitted tube to close in and clamp onto the male screw *e'* on the spindle of the valve, and to lock the latter rigidly in place. A very little movement of the nut G is required to effect this locking and unlocking.

The taper or coning of the nut G need be very slight. Indeed, the coning might be formed on the stem B instead of in the nut; but we find it most convenient, in view of the thinness of the tube-wall of stem B, to cone the female screw.

Our locking or clamping device has two important advantages. The clamping movement of the segments of the split tube is radial, and there is no tendency toward rotation of the valve-spindle and consequent derangement of the feed when the wing-nut G is operated. The wear of the screws on the spindle and inside the stem B may also be taken up by nut G. The device is also simple, cheaply constructed, and durable. The nut G is provided with wings or thumb-pieces for convenience of manipulating it; but it might as well be made polygonal and be operated by a wrench; but this form is most convenient.

As a considerable portion of the oiler illustrated in the drawings is old and well known, we may say that our invention relates in part to the clamping or locking device whereby the spindle E is held, and in part to the construction of the base A, with a bridge, and the glass reservoir C, provided with a tubular stem with slits c^2.

Having thus described our invention, we claim—

1. In an oiler, the combination, with the tubular stem B, provided with internal and external screw-threads at its upper end, and with slits *g* of the screw-spindle E, provided with a head, e^2, and screwed into said stem, and the nut G, screwed onto the slitted end of said stem B.

2. In a visible-feed oiler provided with a tubular stem having a valve-seat and nipple at its lower end, and a valve to control the drip of oil from said nipple, the combination of the said tubular stem slitted at its upper end and provided with a male and female screw at said slitted end, the valve-spindle provided with a male screw and screwed into said stem, and the wing-nut constructed with a tapered female screw and screwed onto the slitted end of said stem, whereby the spindle may be locked against rotation.

3. In an oiler, the combination of the base A, provided with a bridge, a^4, near its top, the stem B, secured in said bridge, and the glass reservoir C, provided with a tubular stem to enter said base, said stem being slitted, substantially as and for the purposes set forth.

In witness whereof we have hereunto signed our names in the presence of two subscribing witnesses.

CONSTANT W. BOOTH.
TOM BRABSON.

Witnesses:
HENRY CONNETT,
J. D. CAPLINGER.