

PATENT SPECIFICATION



Application Date: May 10, 1924. No. 11,618/24.

234,622

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PROVISIONAL SPECIFICATION.

Improvements relating to Vapour Lamps or Burners.

We, PARKINSON AND W. & B. COWAN LIMITED, a company duly organised under the laws of Great Britain, and HARRY JAMES MEADS, a British subject, 5 all of Bell Barn Road Works, Bell Barn Road, in the City of Birmingham, do hereby declare the nature of this invention to be as follows:—

10 This invention relates to vapour lamps or burners of the type provided with a hollow base serving as the reservoir or container of the liquid fuel which is forced up to the burner or burners by compressed air supplied by a pump 15 mounted upon or attached to the said container.

20 The object of the invention is to provide improved means for ensuring a positive closure against leakage of the oil or liquid fuel through the pump independently of the non-return valve.

25 The said improved means may comprise the combination with a tubular plunger rod of a stem extending through the said rod having its inner end adapted for the closure of the pump outlet to the container and at its outer end a grip or finger piece.

30 The said stem, in one example, has a conical inner extremity adapted to seat, when screwed home, upon or within the mouth of the pump outlet to the container and so positively close the same, independently of the usual non-return

35 valve arranged with said outlet. Suitable screw threads are formed on the stem and its associated parts to permit of its being screwed home upon or withdrawn from its seating, and such threads are arranged so that when the stem is released 40 to permit of reciprocations of the pump plunger (the stem moving therewith) such reciprocations are effected without the liability of the threads to abut upon and 45 damage each other.

50 In another form the means for ensuring the said positive closure of the outlet or connection between the pump and container, may comprise a bayonet joint or similar device between the plunger rod 55 itself and the cap or like part of the pump barrel, the arrangement being such that a rotary movement may be imparted to the rod whereby its inner end (suitably shaped to serve as a valve) is seated upon 60 or withdrawn from the pump outlet.

65 To ensure that the positive closure shall be duly effected at the conclusion of pumping the compressed air charge into the container, a bye-pass or the like 60 may be arranged from the air space of the container such that when the said closure is not effected there is an air leakage from the container sufficient to 65 release the pressure within a very short time from the cessation of pumping.

Dated this 9th day of May, 1924.

MARKS & CLERK.

COMPLETE SPECIFICATION.

Improvements relating to Vapour Lamps or Burners.

70 We, PARKINSON AND W. & B. COWAN LIMITED, a company duly organised under the laws of Great Britain, and HARRY JAMES MEADS, a British subject,

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all of Bell Barn Road Works, Bell Barn Road, in the City of Birmingham, do hereby declare the nature of this invention and in what manner the same is to be 75

performed, to be particularly described and ascertained in and by the following statement:—

5 This invention relates to vapour lamps or burners of the type provided with a hollow base serving as the reservoir or container of the liquid fuel which is forced up to the burner or burners by compressed air supplied by a pump 10 mounted upon or attached to the said container.

The object of the invention is to provide improved means for ensuring a positive closure against leakage of the oil or liquid fuel through the pump independently of the non-return valve. 15

The said improved means comprise the combination with a tubular plunger rod of a stem extending through the said 20 rod having its inner end adapted for the closure of the pump outlet to the container and at its outer end a grip or finger piece.

The accompanying drawing illustrates in section a pump constructed in accordance with this invention. 25

The stem *a*, passing down the interior of the tubular plunger *b* carrying the piston *c*, has a conical inner extremity *d* adapted to seat, when screwed home, upon or within the piece *e* forming the pump outlet to the container surrounding the pump, and so positively close the same, independently of the usual non-return valve *f* arranged with said outlet. 30 The valve is contained in a cap *g* and is held against the outlet by a spring *h*. A hole *i* in the cap provides the outlet to the container. Suitable screw threads are formed on the stem and the piece *e* 35 to permit of its being screwed home upon or withdrawn from its seating, and such

threads are arranged so that when the stem is released to permit of reciprocations of the pump plunger (the stem moving therewith) such reciprocations are effected without the liability of the threads to abut upon and damage each other. 45

To ensure that the positive closure shall be duly effected at the conclusion of pumping the compressed air charge into the container, a bye-pass or the like may be arranged from the air space of the container such that when the said 55 closure is not effected there is an air leakage from the container sufficient to release the pressure within a very short time from the cessation of pumping. For example, the valve *f* may be adapted to 60 serve the said purpose.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that we are 65 aware of Specifications Nos. 152,855 4551/10 and 333/03, and we make no claim to anything described therein, but what we claim is:—

1. In air pumps for vapour lamps or 70 burners of the type specified, the combination with a tubular plunger rod of a stem extending through the said rod having its inner end adapted for the closure of the pump outlet to the container and at its outer end a grip or finger 75 piece, substantially as described.

2. An air pump as claimed in Claim 1, and comprising the combination and arrangement of parts, substantially as 80 described and illustrated.

Dated this 3rd day of March, 1925.

MARKS & CLERK.

[This Drawing is a reproduction of the Original on a reduced scale]

