A. KIRBY.

BURNER FOR LIQUID FUEL.

APPLICATION FILED FEB. 4, 1919.

1,312,735. Patented Aug. 12, 1919.

Fig. 1.

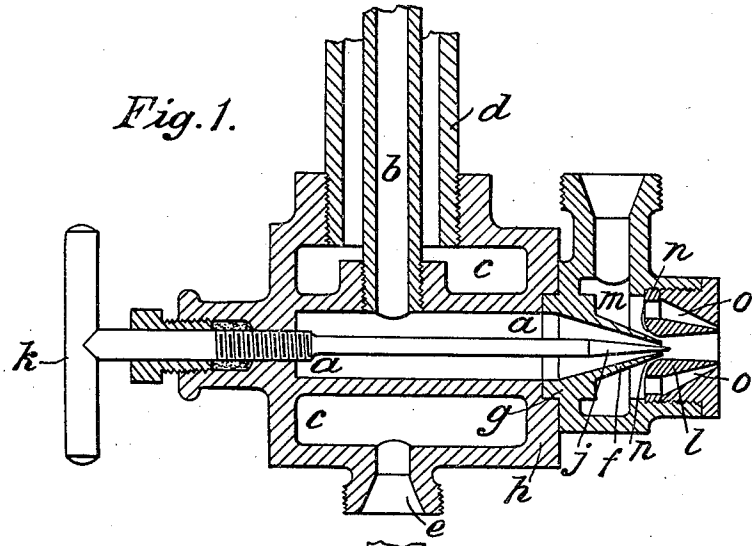


Fig. 2.

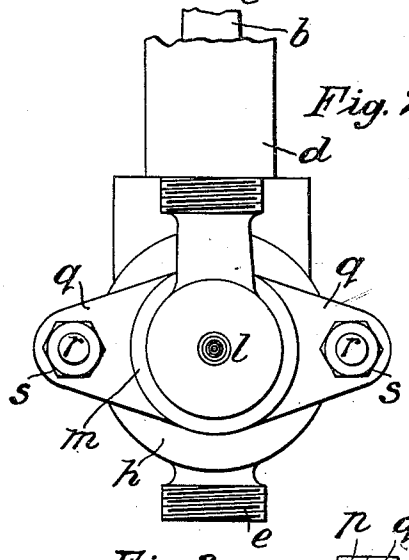
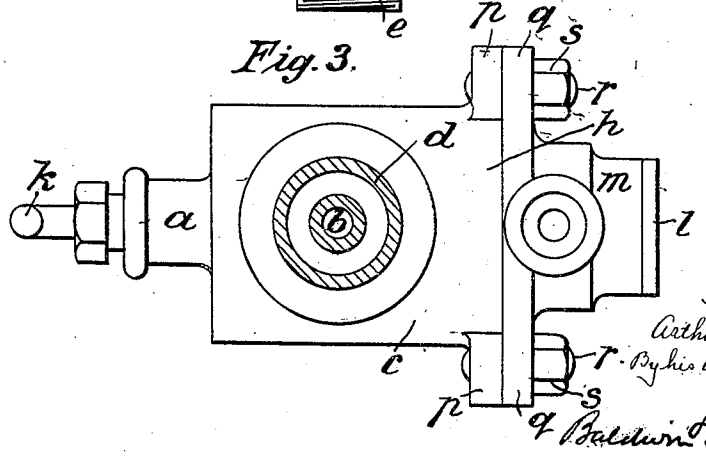


Fig. 3.



Inventor:
Arthur Kirby,
By his Attorneys,
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UNITED STATES PATENT OFFICE.

ARTHUR KIRBY, OF EAST GREENWICH, LONDON, ENGLAND.

BURNER FOR LIQUID FUEL.

1,312,735. Specification of Letters Patent. **Patented Aug. 12, 1919.**

Application filed February 4, 1919. Serial No. 274,849.

To all whom it may concern:

Be it known that I, ARTHUR KIRBY, a subject of the King of Great Britain, residing at Tar Works, Ordnance Wharf, East Greenwich, London, England, have invented new and useful Improvements in Burners for Liquid Fuel, of which the following is a specification.

This invention relates to burners adapted for use with pitch and mixtures of the same.

According to this invention the burner consists of a steam jacketed pitch chamber, having a nozzle into which enters a needle for regulating the delivery of the pitch. The nozzle extends into a pipe and surrounding the nozzle is a steam chamber from which extends two passages, one between the inner end of the pipe and the nozzle, and the other to the outer end of the pipe. Upon the inner end of the nozzle is a collar which fits into a circular recess in the walls of the steam jacket from which walls extend flanges which are bolted to corresponding flanges on the walls of the steam chamber surrounding the nozzle. This construction allows of easy removal of the nozzle and steam chamber whereby easy access may be obtained to the pitch chamber for cleaning purposes.

The accompanying drawings show a burner made in accordance with this invention. Figure 1 is a longitudinal section, Fig. 2 an end elevation, and Fig. 3 is a plan.

a is a pitch chamber having an inlet pipe *b* and a steam jacket *c*. The steam jacket *c* has a supply pipe *d* which surrounds the inlet pipe *b* and an outlet pipe *e*. *f* is a nozzle having a collar *g* fitting into a recess in the wall of the steam jacket *c* into which nozzle extends a needle valve *j* which screws into the end of the pitch chamber *a*, its position within the nozzle being regulated by a handle *k*. The outer end of the nozzle *f* extends into a pipe *l* and surrounding the nozzle is a steam chamber *m* from which lead passages *n* and *o*, one extending between the nozzle *f* and the pipe *l* and the other to the outer end of the pipe *l*. On the wall *h* of the steam jacket *c* are flanges *p* and on the wall of the steam chamber *m* are similar flanges *q*; studs *r r* carried by the flanges *p* pass through holes in the flanges *q* and onto the studs screw nuts *s* whereby the nozzle *f* is firmly held against the pitch chamber *a* and is also easily removed.

What I claim is:—

A burner adapted for use in burning pitch, consisting of a pitch chamber, a steam jacket for said chamber, a nozzle leading from said chamber and located at the end of the burner, a needle valve in the nozzle, a steam chamber surrounding the nozzle, a pipe into the inner end of which the nozzle extends, and two passages leading from the said steam chamber, one extending between the nozzle and the pipe, and the other extending to the outer end of the pipe and surrounding the same.

In testimony that I claim the foregoing as my invention, I have signed my name this 13th day of January 1919.

ARTHUR KIRBY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."