No. 629,536. Patented July 25, 1899.

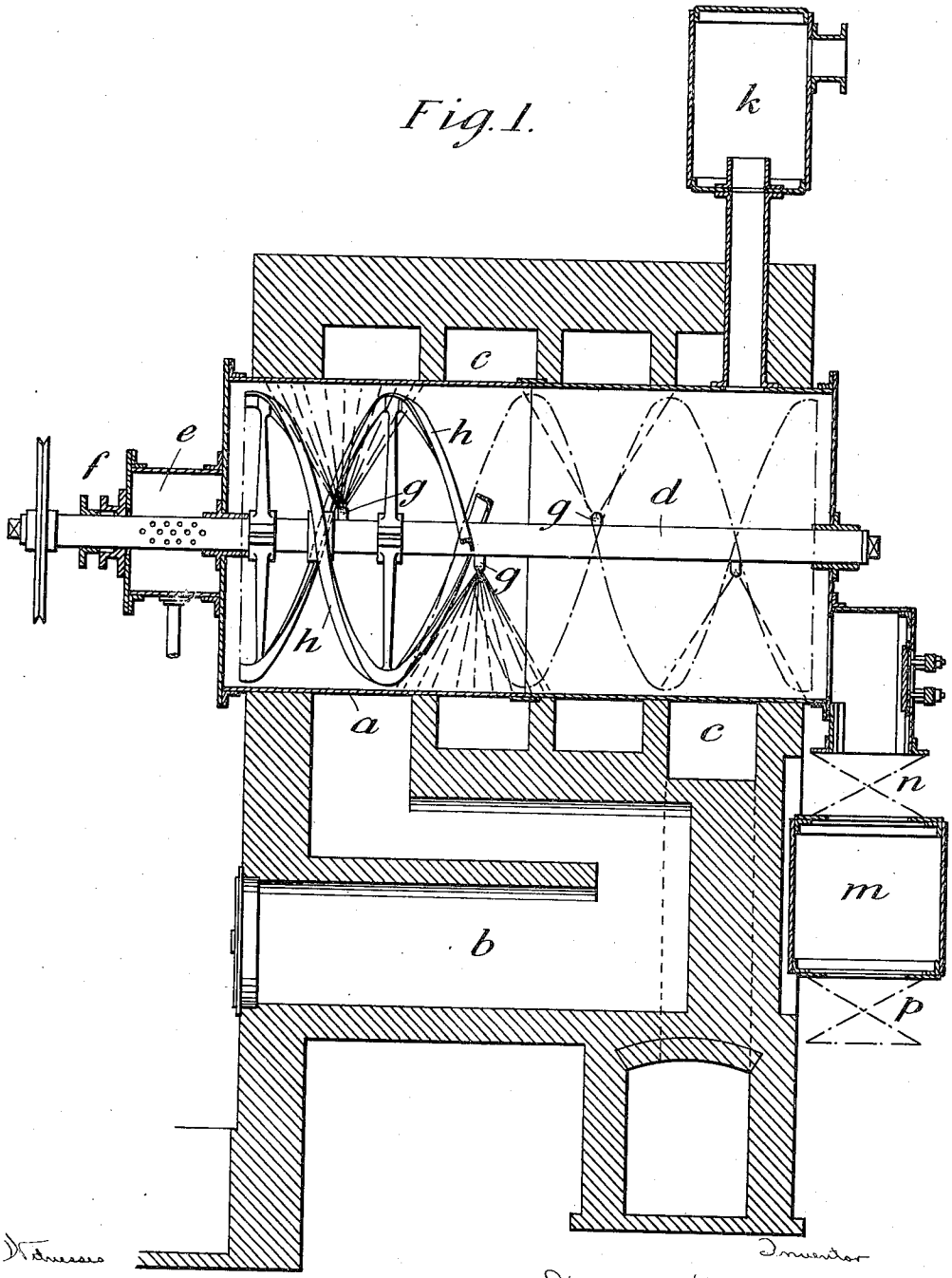
A. ADIASSEWICH.

APPARATUS FOR DISTILLING PETROLEUM, &c.

(Application filed Feb. 20, 1899.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.



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Robert Prindle,

Inventor
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by
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Atty

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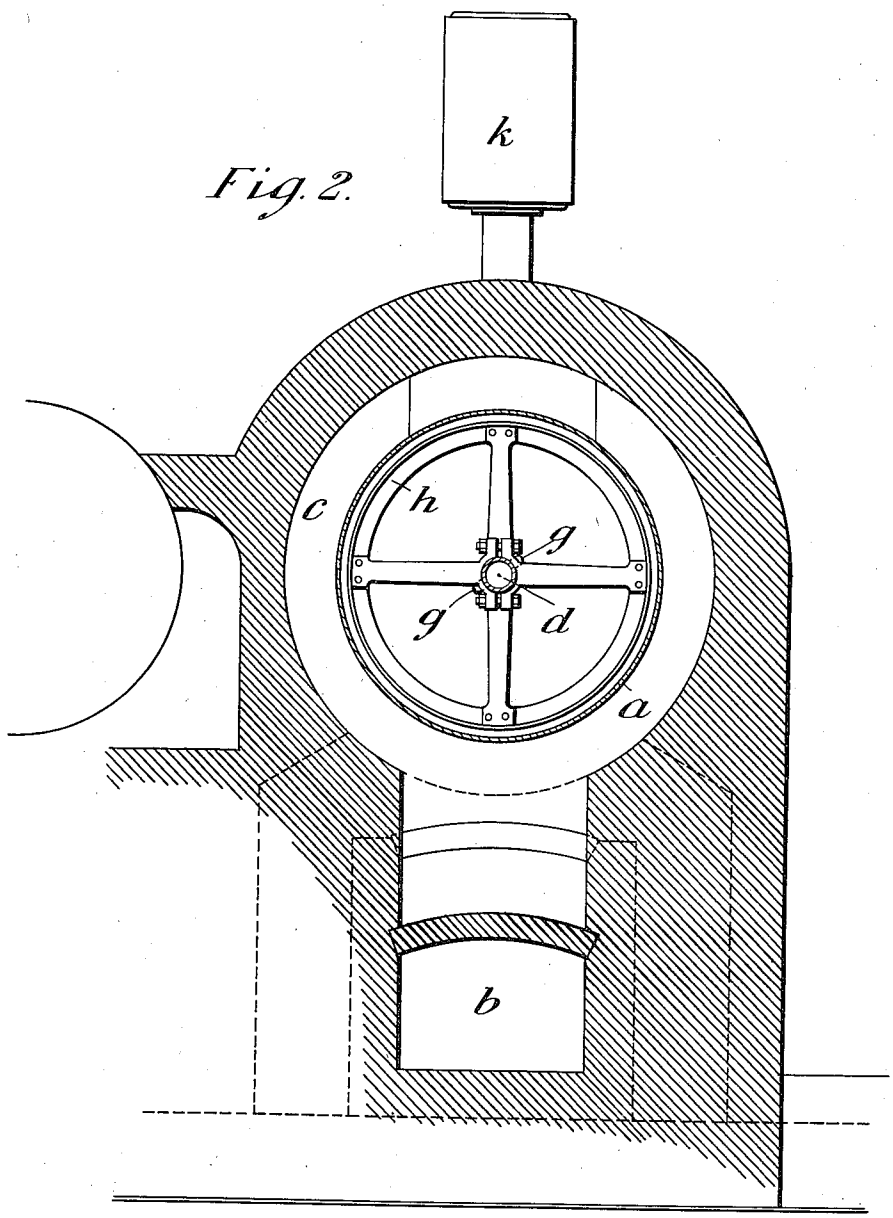
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APPARATUS FOR DISTILLING PETROLEUM, &c.

(Application filed Feb. 20, 1899.)

(No Model.) 2 Sheets—Sheet 2.

Fig. 2.



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UNITED STATES PATENT OFFICE.

ALEXANDER ADIASSEWICH, OF LONDON, ENGLAND.

APPARATUS FOR DISTILLING PETROLEUM, &c.

SPECIFICATION forming part of Letters Patent No. 629,536, dated July 25, 1899.

Application filed February 20, 1899. Serial No. 706,247. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER ADIASSEWICH, a subject of the Czar of Russia, residing at No. 5 Fen court, in the city of London, England, have invented certain new and useful Improvements in Apparatus for Distilling Petroleum and other Liquids, (for which I have applied for a patent in Great Britain, dated February 9, 1899, No. 2,957,) of which the following is a specification.

This invention relates to apparatus for rapidly and economically distilling petroleum and other liquids, as I shall describe, referring to the accompanying drawings.

Figure 1 is a longitudinal, and Fig. 2 is a transverse, section of apparatus constructed according to my invention.

I provide a cylinder *a*, which is externally heated by flame from a furnace or heater chamber *b*, passing through flues *c*, to the temperature required for distilling the liquid under treatment. Centrally within the cylinder *a* revolves a tubular shaft *d*, part of which, laterally perforated, as at *d'*, is inclosed within a chamber *e*, mounted on the front cylinder-head and having an inlet-pipe *e'* and a stuffing-box *f*, through which the shaft *d* passes. The liquid to be distilled is forced under pressure through the inlet-pipe *e'* into the chamber *e*, either alone or with steam or other gas, and enters the hollow of the shaft *d*, whence it issues by lateral nozzles *g* in jets of finely-subdivided spray directed against the heated wall of the cylinder *a*. The shaft *d* also carries helical scrapers *h*, which scrape the wall, directing the carbonaceous matter scraped off to the rear end of the cylinder, whence it can from time to time be removed.

I prefer to provide a box *m* for receiving the carbonaceous matter, sluice-valves *n* and *p* being fixed above and below it. For a time, the valve *n* being open and *p* being closed, the carbonaceous matter falls into the box *m*. Then the valve *n* being closed and *p* being opened the contents of *m* are discharged.

The vapors distilled from the liquid thinly distributed over the wall of the cylinder *a* are led to a collecting vessel *k* and pass thence to suitable condensers, which may be cooled by the liquid that is to be distilled, the heat of the vapors being thus in great measure utilized for heating the liquid feed.

Having thus described the nature of this invention and the best means I know of carrying the same into practical effect, I claim—

1. An apparatus for distilling liquid, consisting of a heater, a cylinder heated by the latter, a chamber located at one end of the cylinder and into which the liquid is delivered, and a rotary, tubular shaft having helical scrapers and jet-nozzles and extending through, communicating with and receiving the liquid from said chamber, the liquid entering the shaft and issuing from the jet-nozzles against the inside of the cylinder, substantially as described.

2. The combination in a liquid-distilling apparatus, of a furnace, a cylinder heated thereby, a rotary, hollow shaft having jet-nozzles and helical blades which scrape the inside of the cylinder, and means for introducing the liquid into the tubular shaft from whence it issues from the jet-nozzles against the inside of the cylinder, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ALEXANDER ADIASSEWICH.

Witnesses:
GERALD L. SMITH,
EDWARD GARDNER.