

(No Model.)

2 Sheets—Sheet 1.

O. BRÜNLER.
PETROLEUM ENGINE.

No. 507,987.

Patented Nov. 7, 1893.

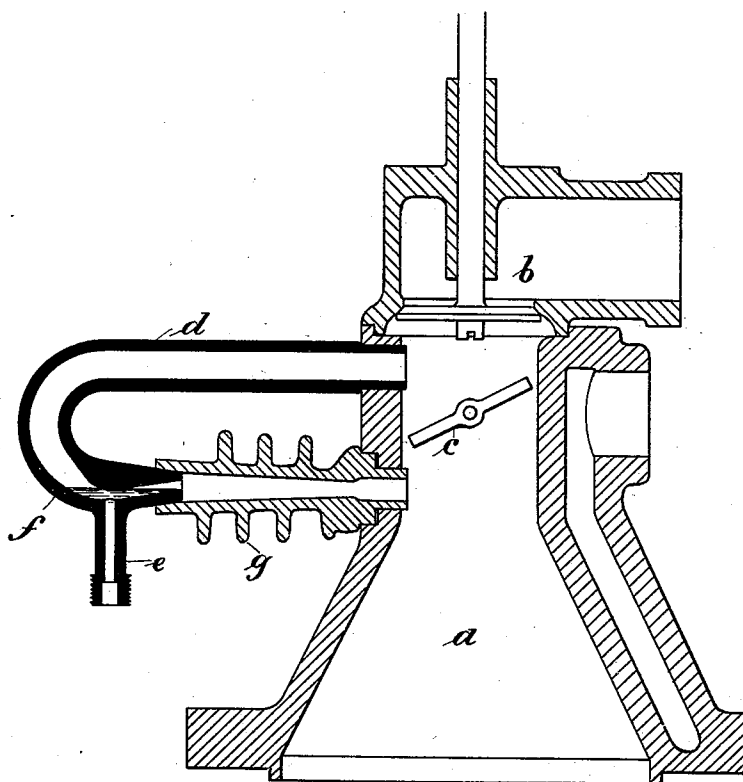


Fig. 1.

Witnesses:
Theodor Leudel.
Paul Hirschke.

Inventor:
Oscar Brünler
per Groen and Schae
His Attorneys.

THE NATIONAL LITHOGRAPHING COMPANY,
WASHINGTON, D. C.

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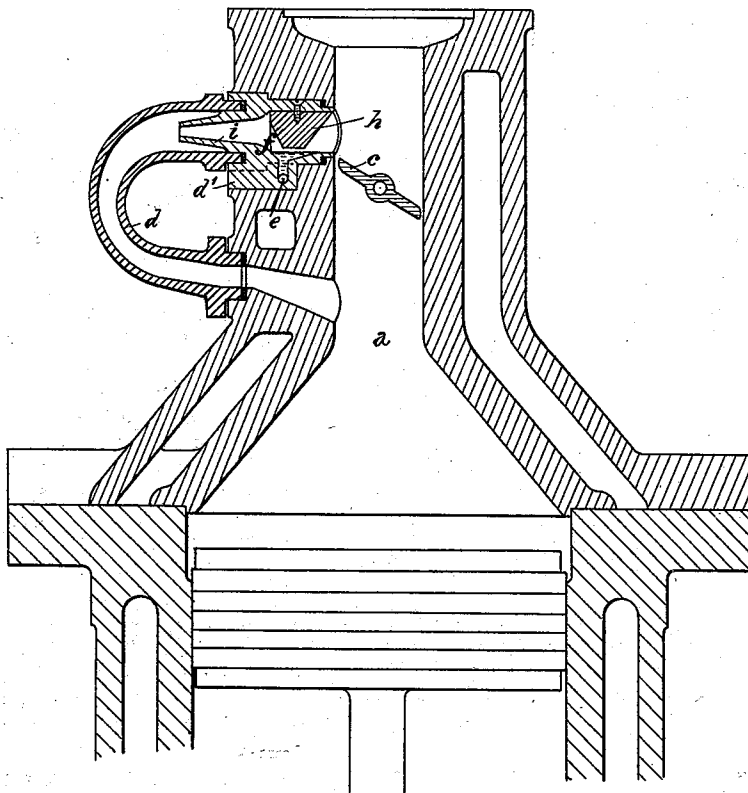


Fig. 2.

Witnesses:
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THE NATIONAL LITHOGRAPHING COMPANY,
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UNITED STATES PATENT OFFICE.

OSCAR BRÜNLER, OF EUTRITZSCH-LEIPSIC, GERMANY.

PETROLEUM-ENGINE.

SPECIFICATION forming part of Letters Patent No. 507,987, dated November 7, 1893.

Application filed May 10, 1892. Serial No. 432,523. (No model.) Patented in Germany February 14, 1892, No. 65,071; in England April 4, 1892, No. 7,047; in France April 5, 1892, No. 220,696; in Switzerland April 25, 1892, No. 5,052; in Belgium April 29, 1892, No. 99,487; in Spain April 29, 1892, No. 13,247; in Sweden May 7, 1892, No. 3,907; in Italy May 11, 1892, No. 31,849/443; in Victoria June 3, 1892, No. 9,696; in New South Wales June 7, 1892, No. 3,796, and in New Zealand June 17, 1892, No. 5,601.

To all whom it may concern:

Be it known that I, OSCAR BRÜNLER, a subject of the Emperor of Germany, and a resident of Eutritzsch-Leipsic, in the Empire of Germany, have invented a new and useful Petroleum-Engine, (for which I have obtained a patent in Germany, No. 65,071, bearing date February 14, 1892; in Switzerland, No. 5,052, bearing date April 25, 1892; in France, No. 220,696, bearing date April 5, 1892; in Great Britain, No. 7,047, bearing date April 4, 1892; in Belgium, No. 99,487, bearing date April 29, 1892; in Sweden, No. 3,907, bearing date May 7, 1892; in Italy, No. 31,849/443, bearing date May 11, 1892; in Victoria, No. 9,696, bearing date June 3, 1892; in New South Wales, No. 3,796, bearing date June 7, 1892; in New Zealand, No. 5,601, bearing date June 17, 1892; in Spain, No. 13,247, bearing date April 29, 1892,) of which the following is a specification.

The object of this invention is a contrivance in petroleum motors, represented by the accompanying drawings, in which—

Figure 1 is a section of the respective portion of the cylinder of a petroleum motor. Fig. 2 represents a modified arrangement.

This device has for its purpose to utilize the air-current, which is drawn by suction into the charge chamber for forming the mixture, at the same time for diffusing the petroleum and for introducing the same into the evaporator. With the suction stroke, valve *b* opens and air enters into the combustion chamber. According to the position of the throttle valve *c* a greater or smaller portion of the drawn in air-current will pass into tube *d*, through the curved end of which it arrives in the evaporator *g* located below the throttle valve *c* and terminates in the charge

space *a* of the cylinder. At the curved end of the tube *d* is provided the inlet *e* for the petroleum. The air current passing through tube *d* meets petroleum, supplied through tube *e* and having accumulated in the cavity *f* of tube *d* in front of the evaporator, and carries this petroleum with it. The throttle valve *c* being located above the opening of the evaporator, no diffused petroleum is blown against said valve.

In the modified construction shown by Fig. 2 the curved tube *d* serves at the same time as an evaporator. The channel *e* through which the petroleum is supplied is disposed in a short tube *d'* connecting the upper end of the tube *d* to the cylinder. This tube *d'* is provided with a nozzle *i* and with a block *h* deflecting the air current to the cavity *f*.

What I claim is—

1. In a gas engine, the combination of the cylinder; an air passage and air-inlet valve *b* in said cylinder; a throttle-valve *c* in said passage; a curved tube *d* entering said passage to one side of said throttle-valve, and reentering it below said throttle-valve; with a cavity *f* in tube *d* for containing petroleum, substantially as described.

2. In a gas-engine, the combination of a cylinder; an air-passage *a* and throttle valve *c* in said cylinder; a curved tube *d* entering passage *a* to one side of throttle-valve *c*; a cavity *f* for petroleum in said tube *d*; with a vaporizer *g* connecting tube *d* with passage *a* below said throttle-valve *c*, substantially as described.

OSCAR BRÜNLER.

Witnesses:

CARL BORNGRAEBER,
ANTON NIEMCZYK.