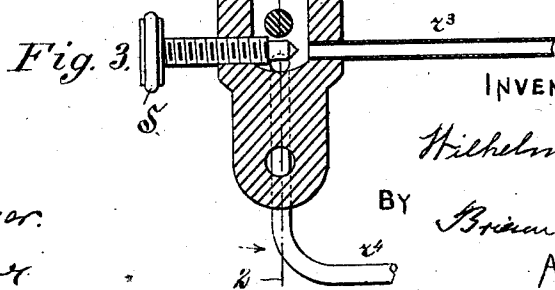
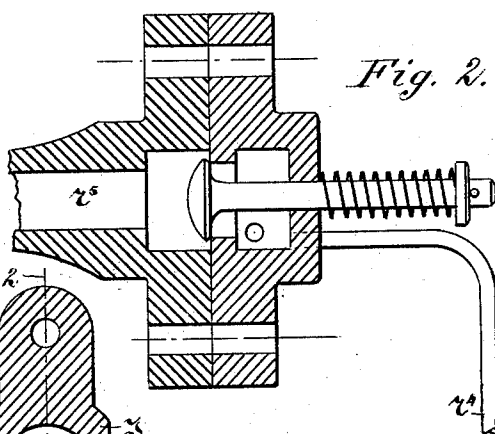
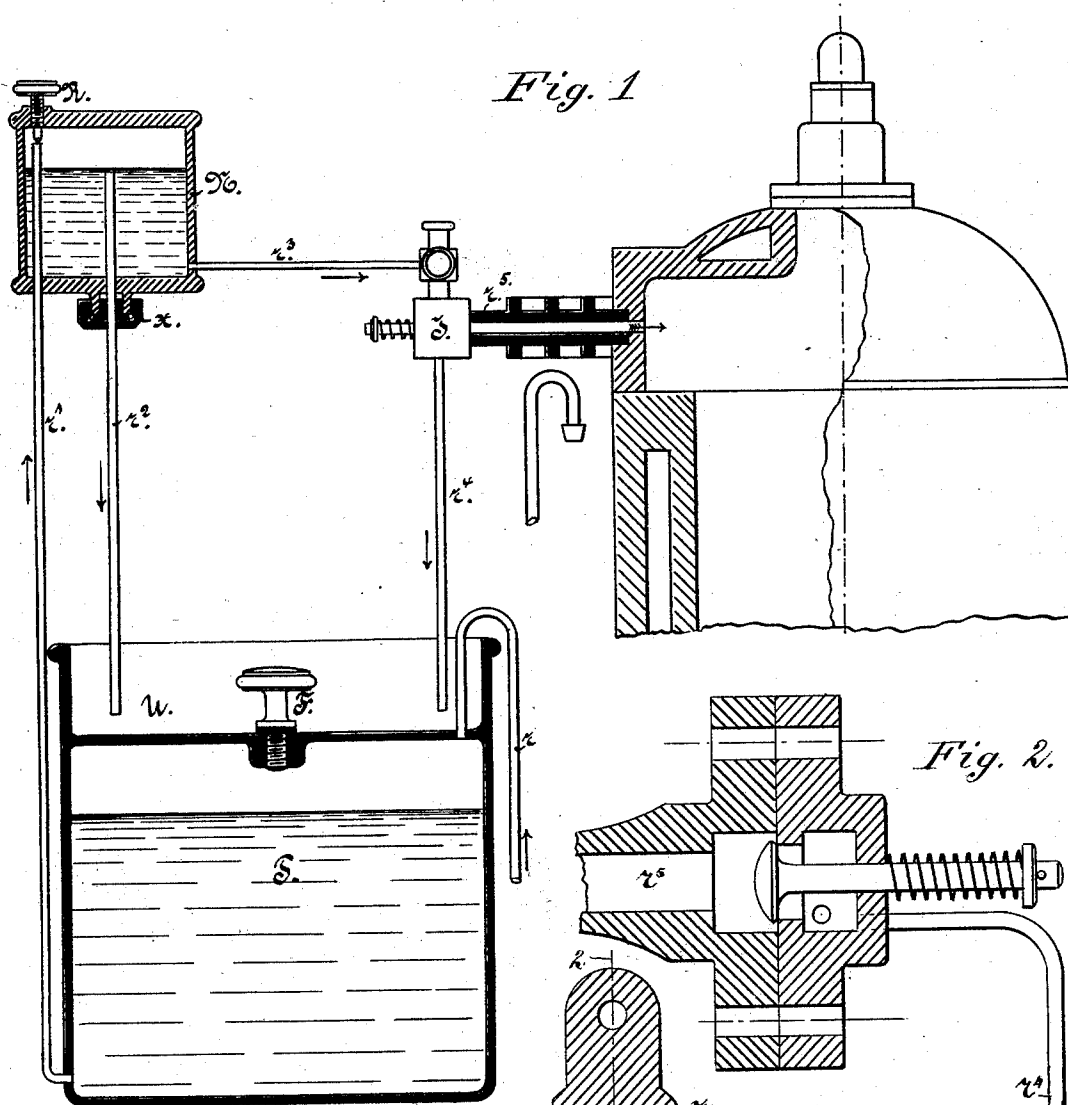


W. SECK.
HYDROCARBON MOTOR.

Patented Nov. 28, 1893.



L. M. Hackelager.
Frederic Moore.

Wilhelm Seck

BY *Bridges & Starnes*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

WILHELM SECK, OF OBERURSEL, GERMANY, ASSIGNOR TO W. SECK & CO.,
OF SAME PLACE.

HYDROCARBON-MOTOR.

SPECIFICATION forming part of Letters Patent No. 509,830, dated November 28, 1893.

Application filed November 10, 1892. Serial No. 451,577. (No model.)

To all whom it may concern:

Be it known that I, WILHELM SECK, a subject of the King of Prussia, residing at Oberursel, in the Kingdom of Prussia, German Empire, have invented certain new and useful Improvements in Hydrocarbon-Motors, of which the following is a specification.

My invention relates to an improvement in petroleum- or hydro-carbon motors and the object of my invention is to provide a motor of the kind with improved means for supplying the liquid fuel, and for regulating such supply said improved means being so constructed as to entirely dispense with the use of a feed pump or automatic valves, as hitherto employed for forcing the liquid fuel into the gas-generator.

The pumps or other devices in general use for the purpose aforesaid, are of very small size, as the quantities of liquid fuel to be supplied at a time are extremely small; in consequence of the minimum size of area of the passages, the latter are greatly liable to becoming choked and other inconveniences are connected with the feeding devices, necessitating frequent repairs. To overcome such difficulties, I employ the following device, which is illustrated by the accompanying drawings in which—

Figure 1 is a longitudinal section of the improved apparatus, and Figs. 2 and 3 are enlarged detail sectional views of the dripping device.

The apparatus of my invention comprises a reservoir P, destined to receive the liquid fuel and provided with an aperture having a hermetical screw-stopper, F; a leveling reservoir, N, and a dripping-device I, the two reservoirs P and N and the dripping device I being connected to each other by tubing.

The reservoir P is filled up nearly to the top through the aperture, after which the latter is hermetically closed by the screw F. Compressed air is then forced into the said reservoir P through the tube r , whereby the liquid fuel within the said reservoir is forced up through tube r' into the leveling-reservoir N. The amount of supply into said reservoir N is adjustable by means of a screw R. From the said reservoir N the petroleum is dis-

charged through tube r^3 to the dripping device I, the discharge-end of which tube is adjustable by a screw-valve S. The drops of petroleum, which are drawn from said screw S by the suction of the piston of the hydro-carbon motor, are delivered through tube r^5 into the gas-generator; the vaporized or gasified fuel, then, serves to drive the motor in the well known manner. All drops of liquid fuel which escape from the screw-valve S in the intervals of the suction-strokes of the piston and which are not delivered into the generator, return through tube r^4 into the upper chamber U of reservoir P.

The delivery of petroleum from reservoir P into the reservoir N is slightly in excess of the discharge from reservoir N through tube r^3 ; in consequence the excess of fluid will collect and rise within said reservoir N till reaching the overflow-tube r^2 through which it runs off to the upper chamber U of reservoir P. The said tube r^2 is adjustable by means of its stuffing box x relatively to its opening into the said reservoir N at a different level; by means of this arrangement the height of the liquid in the reservoir N and the consequent pressure for delivering the oil into the dripping device I may be varied and determined exactly corresponding to the desired amount of supply. This pressure regulates the movement of the motor in an obvious manner.

Besides the advantage of dispensing with a pump for feeding the liquid fuel, the apparatus of my invention offers the particular advantage that no excess of fuel is drawn into the generator and no loss of fuel is occasioned.

I claim as my invention—

1. In a hydro-carbon motor, the combination, with the gas-generator, of a liquid fuel reservoir, a leveling reservoir having an overflow-pipe adjustable in height, and a dripping device having an adjustable discharge, the said two reservoirs and dripping device being connected by tubes, substantially as described.

2. In a hydro-carbon motor the combination, with the gas generator, of a liquid fuel reservoir P, hermetically stoppered, a level-

ing reservoir N, into which the liquid fuel is forced by compressed air from the said reservoir P, a valve R to regulate the supply of liquid fuel into said reservoir N, and a dripping device from which the liquid fuel is drawn by the suction of the motor-piston, substantially as described.

3. In a hydro-carbon motor, the combination, with the gas-generator, of a liquid fuel reservoir P, hermetically stoppered, a leveling reservoir N, into which the liquid fuel is forced by compressed air from said reservoir P, a dripping device I, connected to said res-

ervoir N and having an adjustable discharge S, a discharge pipe r^3 , feeding the liquid fuel drawn by the suction of the motor piston into the gas-generator, and a return-tube r^4 , delivering the excess of discharged liquid fuel to the reservoir P, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILHELM SECK.

Witnesses:

LOUIS STROH,
JEAN GRUND.