

No. 608,298.

Patented Aug. 2, 1898.

J. J. OHRT.
GAS ENGINE.

(Application filed Mar. 5, 1897. Renewed June 22, 1898.)

(No Model.)

Fig. 1.

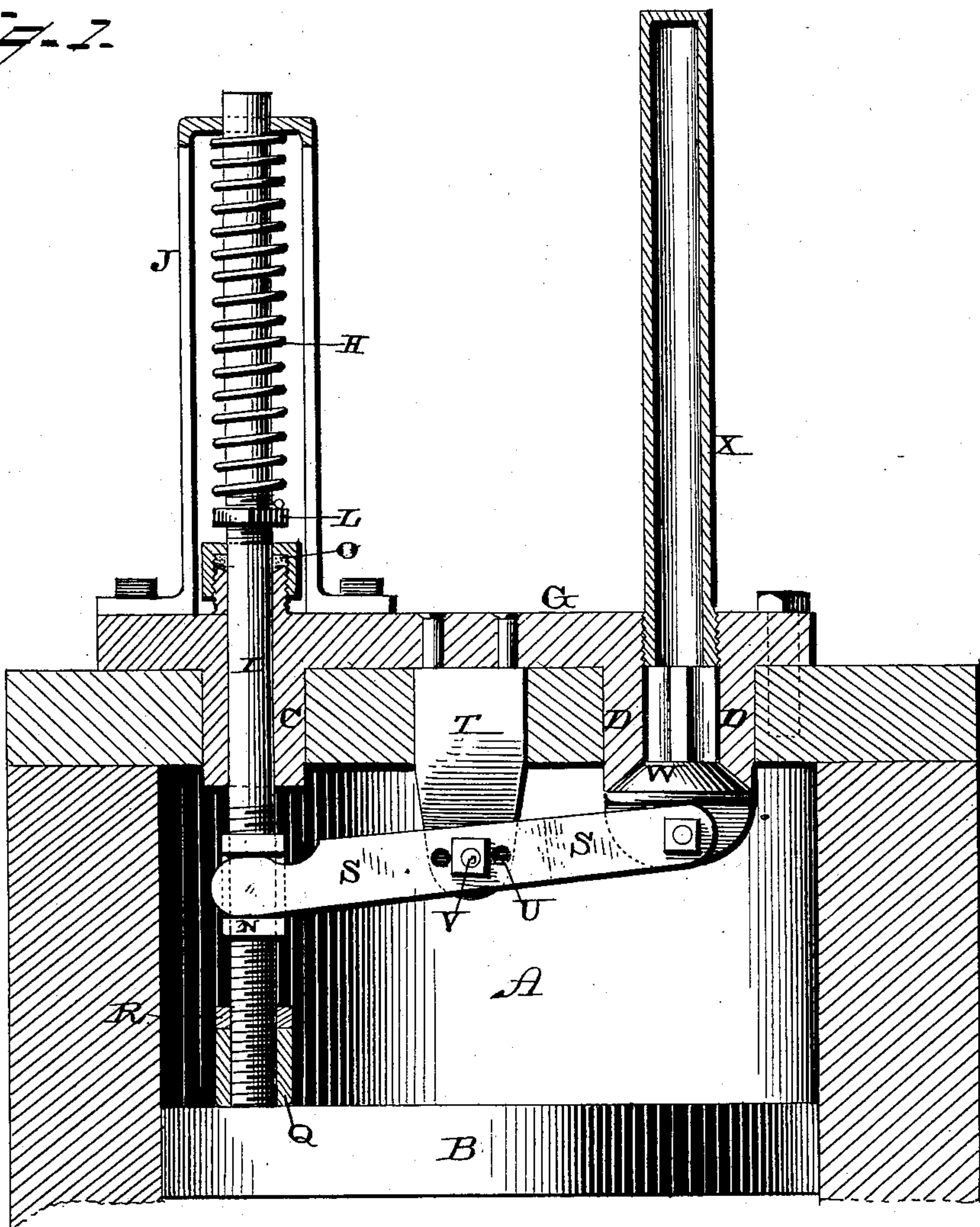


Fig. 2.

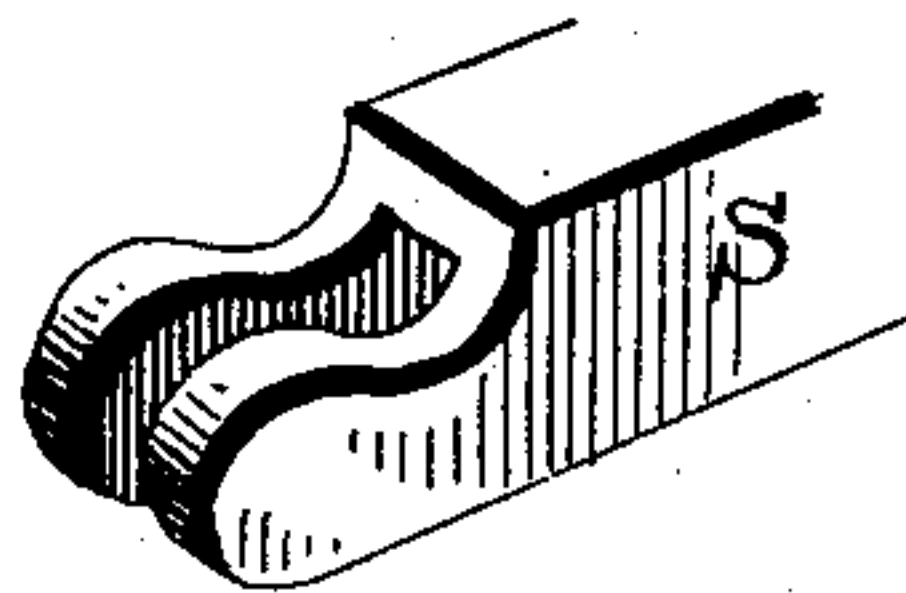
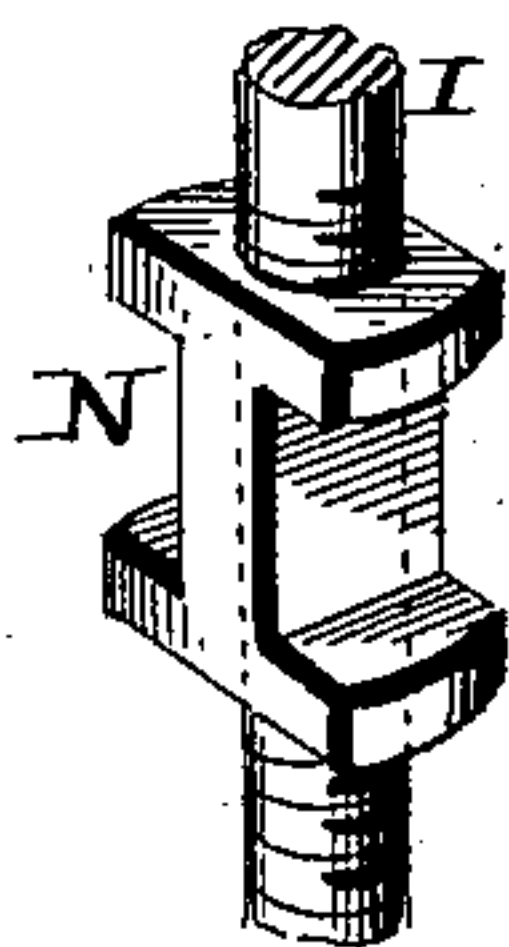


Fig. 3.

Witnesses
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UNITED STATES PATENT OFFICE.

JOHN J. OHRT, OF BURLINGTON, IOWA.

GAS-ENGINE.

SPECIFICATION forming part of Letters Patent No. 608,298, dated August 2, 1898.

Application filed March 5, 1897. Renewed June 22, 1898. Serial No. 684,184. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. OHRT, a citizen of the United States, residing at Burlington, in the county of Des Moines and State of Iowa, have invented certain new and useful Improvements in Gas - Engines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

My invention relates to an improvement in gas or vapor engines; and it consists in a spring-actuated rod or plunger that is operated by the movement of the piston combined with a pivoted lever and a puppet-valve that controls the entrance to the hot tube, the lever being connected to the plunger at one end and to the valve at the other, as will be more fully described hereinafter.

The object of my invention is to connect the hot tube directly to the head of the cylinder and to control the movement of the valve by means of the piston itself.

In the accompanying drawings, Figure 1 is a vertical section of a head of a cylinder of a gas or vapor engine and to which my invention is applied. Figs. 2 and 3 show detail perspectives.

A represents the cylinder of a gas or vapor engine, and B the piston thereof. Through the head of the cylinder are made three openings, through two of which extend the sleeves C D, which form a part of the plate G, that is bolted to the head of the cylinder, as shown. Passing through the sleeve C is the rod or plunger I, which has the spring H applied to its outer end and which has its movements guided by a guide J, which is bolted to the plate G, as shown. The tension of the spring H is controlled by the nut L, which is placed upon the screw-threaded portion of the rod or plunger I for this purpose. In order to form a tight joint for the plunger and prevent the escape of any gas at this point, the packing-box O is formed. The inner end of the plunger I is screw-threaded to receive the nut N and the adjusting-nut Q and jam-nut R. The nut N has two recesses formed in opposite sides, so as to receive the bifurcated ends of the lever S, while the nut Q

serves to regulate the distance that the plunger shall be moved by the piston. The jam-nut R acts in the usual manner to prevent any displacement of the nut Q.

The lever S is pivoted upon the support T, that is passed through the head of the cylinder, and the lever is provided with a suitable number of openings U, through any one of which the pivotal bolt V is passed for the purpose of adjusting the distance that the puppet-valve W is to be moved. This puppet-valve closes the lower end of the sleeve D, and screwed into the head of the cylinder or plate G is the hot tube X, which forms a continuation of the sleeve D. It will be seen that this hot tube X is applied almost directly to the head of the cylinder, so that there is a very short passage between it and the cylinder, and hence the gas can be compressed therein, and when the explosion takes place all of the gas is ignited and a more perfectly acting and powerful engine is produced.

Gas, vapor, or gasolene may be used for driving the engine, as may be preferred.

The nut N is made adjustable upon the rod for the purpose of regulating the amount of movement which shall be given to the valve W. The bifurcated end of the lever S is preferably shaped, as shown, so as to cause as little friction as possible with the nut. Upon the lower end of the valve W one or more lips are formed, and through these lips and the end of the lever S a pivotal bolt is passed.

Having thus described my invention, I claim—

In a gas-engine, a spring-actuated rod or plunger, which extends through the head of the cylinder, and an adjustable nut placed thereon, for making connection with one end of the lever, combined with a lever pivoted in the cylinder, and a valve for controlling the passage-way to an ignition-chamber, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOHN J. OHRT.

Witnesses:

OTTO LOFSTROM,
J. S. LAHEE.