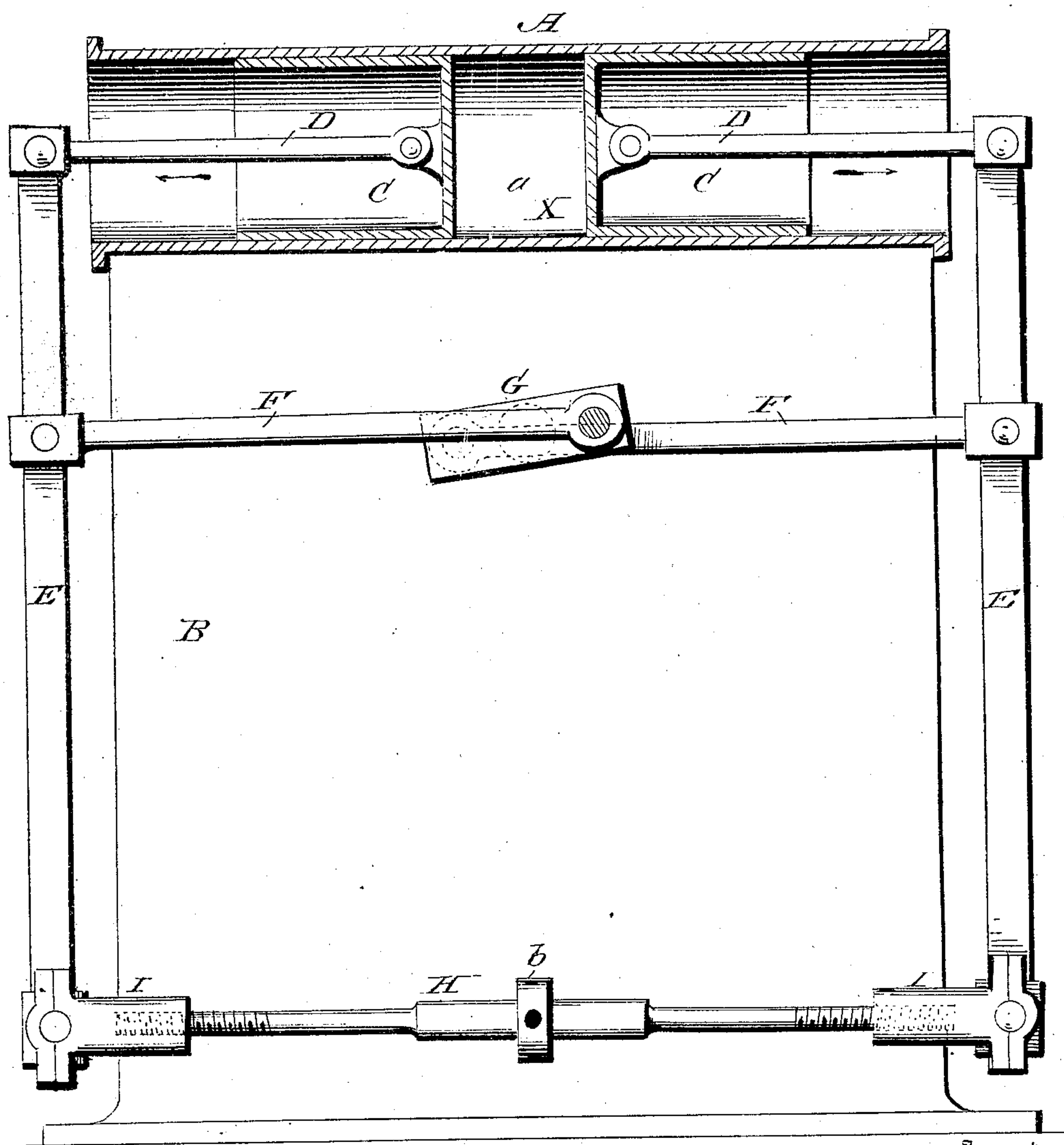


No. 891,432.

PATENTED JUNE 23, 1908.

J. S. MILLER.  
GAS AND OTHER ENGINE.  
APPLICATION FILED NOV. 26, 1907.



Inventor

*John S. Miller,*

Witnesses

*M. E. Gordon*  
*P. H. Forester*

By

*Chas. H. Fowler*

Attorney



# UNITED STATES PATENT OFFICE.

JOHN S. MILLER, OF ARNOLD, KANSAS.

GAS AND OTHER ENGINE.

No. 891,432.

Specification of Letters Patent.

Patented June 23, 1908.

Application filed November 26, 1907. Serial No. 403,916.

*To all whom it may concern:*

Be it known that I, JOHN S. MILLER, citizen of the United States, residing at Arnold, in the county of Ness and State of Kansas, have invented certain new and useful Improvements in Gas and other Engines, and 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 and figures of reference marked thereon.

The present invention has reference to gas, gasoline, and like engines where it is desired to change the size and capacity of the compression chamber and the object thereof is to provide a simple and effective means for simultaneously adjusting the piston rods so as to increase or diminish the capacity of the compression chamber as circumstances may require as will be hereinafter described and claimed.

The drawing represents a portion of an engine sufficient to illustrate the application of my invention thereto, the operating parts being in elevation with the cylinder and piston-heads in section.

The cylinder represented at A is supported upon a frame or standard B, the gas, gasoline or other motive power fluid entering the cylinder at *a* in the usual manner, the piston-heads C being of any desirable construction and form and connected to the piston-rods D in any well known manner.

The several parts as above described may be of the ordinary construction as I do not wish to be understood as limiting the invention to the form and construction of the cylinder, piston-heads or piston rods shown in the drawing, as they may be variously modified or changed without in any manner departing from the essential feature of the invention.

To the outer ends of the piston-rods D are suitably pivoted the upright arms E and to these arms suitably connected the outer ends of pitmen-rods F which connect at their inner ends in the usual manner with suitable cranks G said cranks in turn connecting with the driving mechanism of the engine, the pistons having imparted to them a reciprocating motion through the medium of the gas, gasoline or other motive power fluid entering the compression chamber X through the inlet *a*.

The pitmen-rods and cranks above de-

scribed are of the ordinary construction and a common feature in engines and form no part of my invention and consequently may be changed or modified in construction as found desirable.

As previously stated the invention resides in suitable means for increasing or diminishing the size of the compression chamber to correspondingly increase or diminish the power of the engine at will, and I have shown one of many means that may be employed for attaining this object, which in the present instance consists of a right and left-hand screw rod H provided with a nut or turn-buckle *b*.

The screw threaded ends of the rod H engage with correspondingly screw threaded sockets in blocks or heads I pivoted or otherwise suitably connected to the lower ends of the arms E. When it is desired to increase the capacity or size of the compression chamber from that shown, the rod H is turned in the proper direction which will force the arms E outward and the piston rods and piston heads will be carried with them in the direction of the arrows, thereby increasing the size of the compression chamber at will and as circumstances require.

Having now fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. In an explosive engine, a cylinder, pistons therein with their rods extending in opposite directions, pivotally mounted, upright arms pivotally connected with the outer ends of said piston rods, a driving shaft, connections between the same and said arms intermediate the ends of the latter, and adjustable means connecting the lower ends of said arms.

2. In an explosive engine, a cylinder, oppositely disposed pistons therein, upright arms pivotally connected at their upper ends to the outer ends of the piston rods, heads pivotally connected to the lower ends of said arms, means adjustably connecting said heads, and connections between said arms intermediate their ends and the driving mechanism of the engine.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN S. MILLER.

Witnesses:

IRA O. SHELLENBERGER,  
Mrs. W. E. TRAYLOR.