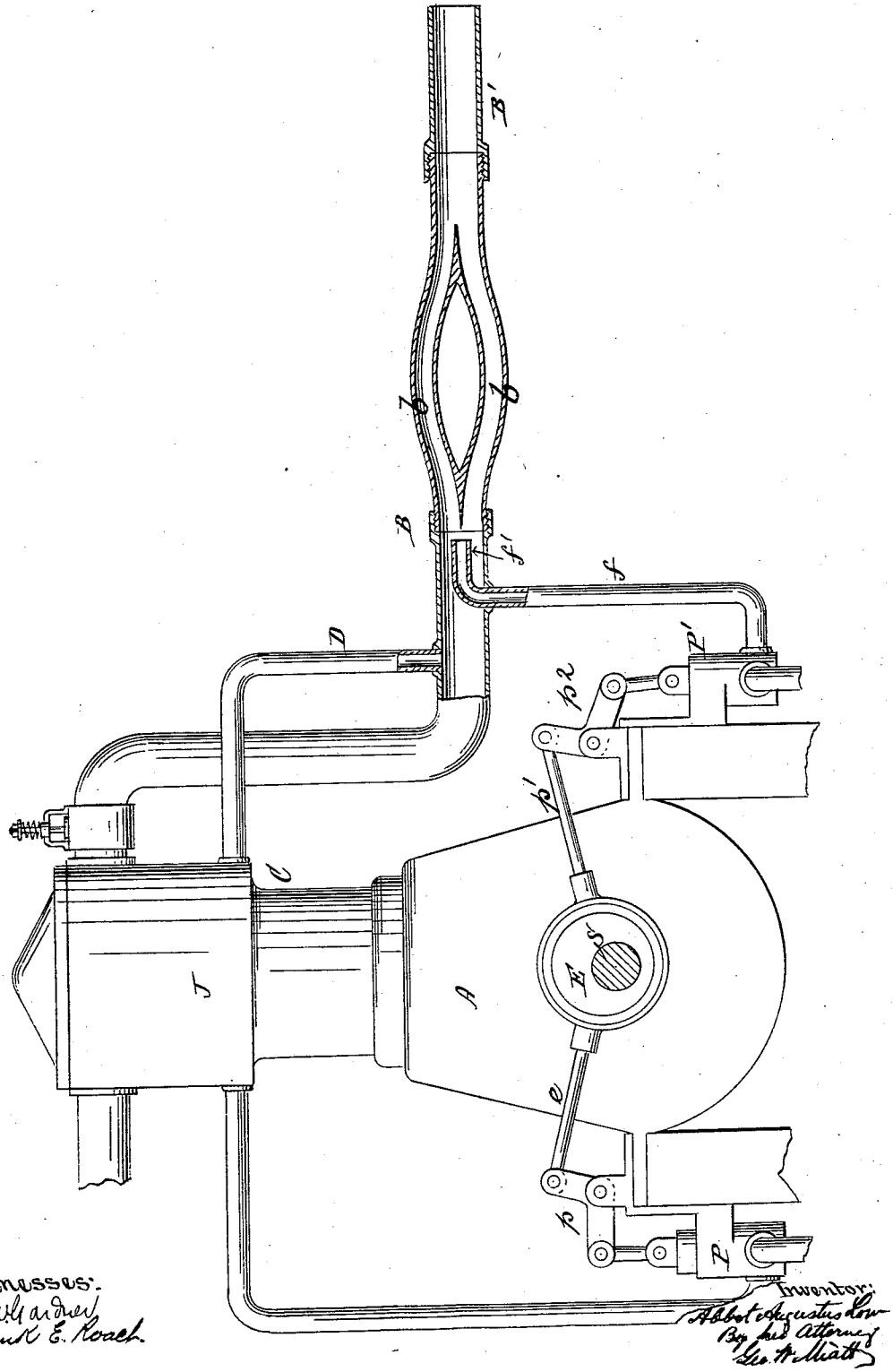
No. 751,188. PATENTED FEB. 2, 1904.

A. A. LOW.

EXHAUST FOR EXPLOSIVE ENGINES.

APPLICATION FILED MAY 27, 1903.

NO MODEL.



THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 751,188. Patented February 2, 1904.

UNITED STATES PATENT OFFICE.

ABBOT AUGUSTUS LOW, OF HORSESHOE, NEW YORK.

EXHAUST FOR EXPLOSIVE-ENGINES.

SPECIFICATION forming part of Letters Patent No. 751,188, dated February 2, 1904.

Application filed May 27, 1903. Serial No. 158,913. (No model.)

To all whom it may concern:

Be it known that I, ABBOT AUGUSTUS LOW, a citizen of the United States, residing at Horseshoe, St. Lawrence county, and State of New York, have invented certain new and useful Improvements in Exhausts for Explosive-Engines, of which the following is a specification sufficient to enable others skilled in the art to which the invention appertains to make and use the same.

My invention relates to improvements in exhausts in explosive-engines, and is designed to obviate the noise and concussion incidental to the discharge of the products of combustion and to render the engine more smooth and uniform in operation.

The invention consists in the special construction and arrangement of parts hereinafter described and claimed specifically.

The accompanying drawing represents diagrammatically parts essential in carrying out my invention, the view representing an explosive-engine provided with two force-pumps for the injection of water into the discharge-conduit, the latter being shown partially in section.

A represents an explosive-engine of any ordinary or well-known type, the upper portion of the piston-cylinder C being formed with a water-jacket J, through which water is forced by the pump P, actuated through the medium of the bell-crank lever p and eccentric-lever e by the eccentric E on the power-shaft S. The discharge-pipe D from the water-jacket J conducts the water from the jacket into the exhaust conduit or pipe B.

P′ is an auxiliary force-pump operated by the eccentric E by means of the eccentric-rod p' and bell-crank lever p^2, the discharge-pipe f from said auxiliary pump P′ entering the exhaust-pipe B and being preferably formed with a nozzle f' within said exhaust-pipe.

Beyond the points of entrance of the water-pipes D and f the exhaust-conduit B is divided into two or more passages b, either by a central partition or by any means that may be found most expedient, the object being to deflect the discharge, so that the products of combustion are positively brought into intimate contact with the water forced through said discharge-conduit. As a result of this combination and arrangement of parts the noise heretofore attendant upon the discharge of the products of combustion through the exhaust-conduit is avoided, or at least reduced to the minimum, since the force of the intermittent discharges from the combustion-chamber is imparted to and neutralized largely by the water passing through the conduit, the discharge of which creates less vibration of the atmosphere than would be created by the intermittent discharges of the products of combustion were they made directly into the atmosphere.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In combination with an explosive-engine, an exhaust pipe or conduit divided into two or more passages and means for forcibly injecting water into said exhaust-conduit in front of said plurality of passages, for the purpose and substantially in the manner set forth.

2. In combination with an explosive-engine, provided with an exhaust pipe or conduit divided in part into two or more passages, of means for forcing water from the water-jacket into said exhaust-conduit and means for forcing an auxiliary supply of water into said exhaust-conduit, said jets of water being introduced into the exhaust-conduit betweeen the engine and the plurality of passages formed in said exhaust-conduit, substantially in the manner and for the purpose herein set forth.

ABBOT AUGUSTUS LOW.

Witnesses:
D. W. GARDNER,
FRANK E. ROACH.