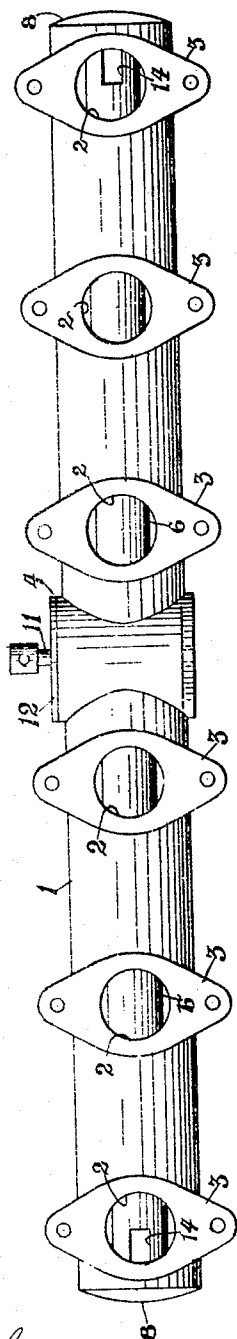


J. C. W. VAN BLERCK.
 INTAKE MANIFOLD FOR EXPLOSIVE ENGINES.
 APPLICATION FILED MAY 19, 1910.

980,576.

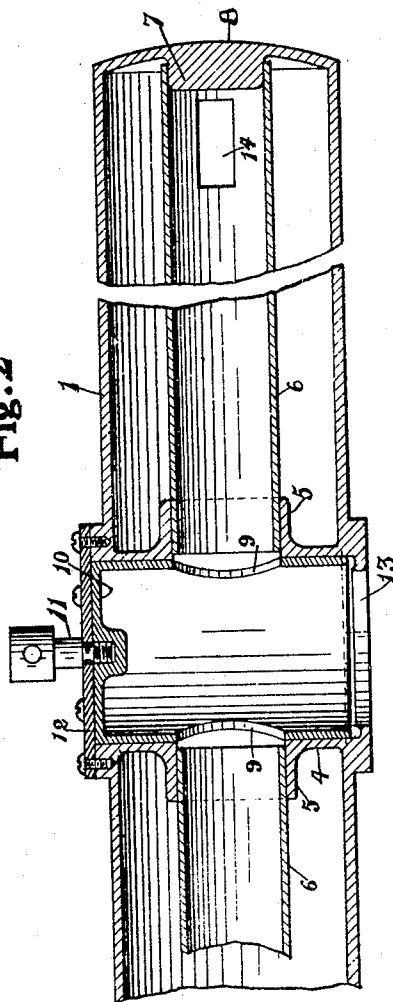
Patented Jan. 3, 1911.

Fig. 1



Witnesses
 A. M. Shannon.
 A. M. Dorr.

Fig. 2



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UNITED STATES PATENT OFFICE.

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INTAKE-MANIFOLD FOR EXPLOSIVE-ENGINES.

980,576.

Specification of Letters Patent.

Patented Jan. 3, 1911.

Application filed May 19, 1910. Serial No. 562,230.

To all whom it may concern:

Be it known that I, JOSEPH C. W. VAN BLERCK, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Intake-Manifolds for Explosive-Engines, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to a manifold intake for explosive engines, and more particularly to an arrangement thereof which provides for an even distribution of carbureted air to the several cylinders of an engine and to means for throttling the fuel supply without changing the carbureter or mixing device.

The invention consists in the matters hereinafter set forth, and more particularly pointed out in the appended claims.

Referring to the drawings, Figure 1 is a view in elevation of a manifold intake that embodies features of the invention; and Fig. 2 is a view in longitudinal section partly broken away and enlarged, of the device.

In the drawings an outer tubular casing 1 is permanently closed at each end and is provided with a plurality of regularly disposed outlets 2 each provided with flanges 3 by which they may be secured to inlet openings of a multi-cylinder engine. The casing has a central transverse cylindrical body 4 with a pair of diametrically disposed exterior nipples 5 in axial alinement with the tubular casing.

Distributing tubes 6 are secured at their inner ends in the nipples 5 and at their outer ends engage bosses 7 on the inner faces of the casing ends 8 or are otherwise permanently closed and secured at their outer extremities to the casing. The inner inlet ends of the distributing tubes 6 are adapted to register with a pair of diametrically opposite ports 9 formed in a hollow closure 10 that is rotatably secured in the cylinder body 4. The upper end of the closure is closed and is provided with a stem 11 that extends through a cap 12 detachably secured on the body end. The lower end of the closure is open and registers with an inlet opening 13 in the casing. Each distributing tube 6 has a lateral outlet 14 near its outer extremity.

When in use, the indrawn vapor from a carbureter or other like device enters the inner tubes of the manifold and passes to

the outer ends thereof into the outer casing from whence it is drawn in order by the engine cylinders. The manifold thus becomes a mixing chamber owing to the length of the passage through which the vapor is drawn and insures a constant quality of fuel, as the throttling is done by the manifold valve so that the carbureter or other primary mixing device is not disturbed or readjusted when once set. Furthermore if there is any condensation of the vapor, it takes place in the inner tube and the drops settle therein and are taken up again by the passing current so that there is no flooding or other similar disturbance.

Obviously, changes in the details of construction may be made without departing from the spirit of the invention and I do not wish to limit myself to any particular form or arrangement of parts.

What I claim as my invention is:—

1. A manifold intake for engines comprising an outer cylindrical casing closed at its ends and provided with a plurality of lateral outlets, a transverse cylindrical body centrally disposed in the casing provided at one end with an inlet, a pair of oppositely disposed distributing tubes in the casing provided with intake ends opening into the interior of the body and lateral outlets at their outer ends, and a valve closure rotatably seated in the body and adapted to control communication between the casing inlet and the inner open ends of the distributing tubes.

2. A manifold intake for engines comprising an outer cylindrical casing closed at each end provided with a plurality of lateral outlets, a central transverse cylindrical body centrally disposed in the casing and provided at one end with an inlet and also with lateral outlets in substantially axial alinement with the casing, a pair of oppositely disposed distributing tubes in the casing whose inner inlet ends are connected with the lateral openings of the body and whose outer ends have lateral outlets, and a valve closure, rotatable in the body having an inlet port in register with the body inlet, and lateral outlet ports adapted to register severally with the inlet ends of the distributing tubes.

3. A manifold intake for engines comprising an outer cylindrical casing closed at each end and provided with a plurality of lateral outlets, a transverse cylindrical body cen-

trally disposed in the casing and provided at one end with an intake opening, hollow nipples extending radially from the body in axial alinement with the casing, a pair of
5 oppositely disposed distributing tubes whose inner ends are connected to the body nipples and whose outer ends each have a lateral outlet, and a valve closure rotatably seated in the body and adapted to control communication between the body inlet and the
10 distributing tube inlet ends.

4. A manifold intake for engines comprising an outer cylindrical casing closed at each end and provided with a plurality of lateral
15 outlets, a transverse cylindrical body centrally disposed in the casing and provided at one end with an intake opening, a pair of

oppositely disposed hollow nipples on the body in axial alinement with the casing, a pair of distributing tubes each secured at its
20 inner end in a nipple of the body and provided at its outer end with a lateral outlet, a cylindrical closure journaled in the body and provided at one end with an intake port and with lateral outlet ports each adapted
25 to register with one of the nipple openings, and a stem for manipulating the closure.

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

JOSEPH C. W. VAN BLERCK.

Witnesses:

OTTO F. BARTHEL,
ANNA M. DORR.