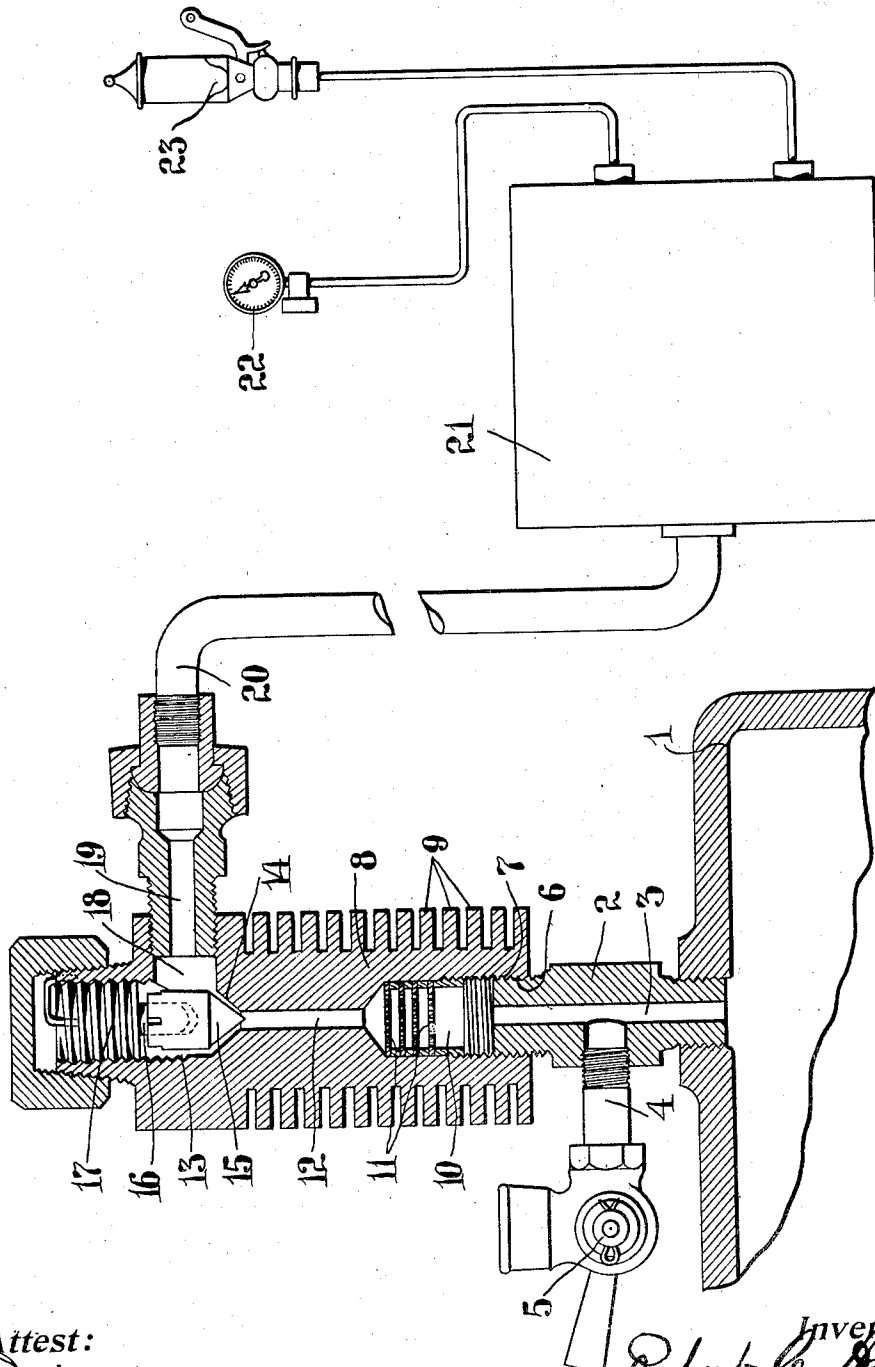


R. C. ADAMS.
WHISTLE VALVE ATTACHMENT FOR INTERNAL COMBUSTION ENGINES.
APPLICATION FILED NOV. 20, 1908.

1,016,725.

Patented Feb. 6, 1912.



Attest:
L. F. Browning

Inventor:
Robert C. Adams
by *Edward C. Resider* Atty

UNITED STATES PATENT OFFICE.

ROBERT C. ADAMS, OF WILTON, CONNECTICUT.

WHISTLE-VALVE ATTACHMENT FOR INTERNAL-COMBUSTION ENGINES.

1,016,725.

Specification of Letters Patent.

Patented Feb. 6, 1912.

Application filed November 20, 1908. Serial No. 463,525.

To all whom it may concern:

Be it known that I, ROBERT C. ADAMS, a citizen of the United States of America, residing at Wilton, county of Fairfield, State of Connecticut, have invented an Improvement in Whistle-Valve Attachments for Internal-Combustion Engines, of which the following is a specification.

This invention relates to an attachment to be applied to internal combustion engines.

It is of the general character disclosed in U. S. Patent No. 591,521 granted October 12, 1897 to George F. Arp.

The accompanying drawing is a sectional view.

1 indicates the engine cylinder in a threaded aperture in the wall of which is fitted a threaded cast metal plug 2 having an opening 3 extending longitudinally through it. In a threaded aperture in the side of the plug is fitted a pipe 4 that communicates with the bore of the plug and has applied to its outer end a blow-off valve 5 of any suitable construction. The outer end of the plug is threaded, as at 6, to receive the internal thread 7 formed in a cavity in the end of a body piece 8 that is a metal block preferably circular in cross section and tooled to produce, annular ribs 9 to increase its heat radiating capacity. Within the cavity in the body 8 adjacent the plug 2 is screwed a thimble 10 having four parallel wire gauze partitions 11 beyond which the cavity is contracted to a bore or opening 12 of considerably less diameter than the cavity and extending through the body 8 and communicating with a second cavity 13 at the other or outer end of the body. The latter cavity 13 has a conical valve seat 14 surrounding the opening or bore 12 and cooperating with such valve seat is a conical check valve 15 loosely mounted on a spindle 16 arranged axially in line with the passage 12 and carried by a screw plug 17 screwing into a threaded aperture in the outer end of the body 8. The cavity 13 has a lateral extension 18 the inner wall of which is threaded

to receive the hollow threaded plug 19 the outer end of which is threaded to receive a pipe 20 leading to a storage tank 21 placed at any suitable or required distance from the cylinder of the engine and that may be provided with a pressure gage 22, and is provided with a whistle 23, the latter to be operated from any point by a cord, chain, lever or other suitable connection.

The wire gauze partitions act as separators to prevent ignition of the stored gases beyond the check valve which gases will in practice probably have mixed with them more or less of the explosive mixture admitted to the engine cylinder. The gravity check valve should be adjusted for a very small lift. A gravity valve is preferred, but of course it may be backed by a spring of suitable strength. The body 8 of the device has large capacity for radiation of heat absorbed by it from the hot gases. The device is solid and rigid. It can be screwed into the aperture of the engine cylinder and then connected by a pipe, such as 20, either rigid or flexible, with the storage tank to be appropriately located as desired. The construction is heavy and substantial and the device may be applied with facility to any type of internal combustion engine.

I claim:

1. A whistle attachment for an internal combustion engine, comprising a hollow metal plug adapted to be connected to the combustion chamber, a blow-off valve connected with said plug, a body part of metal having radially arranged projections to afford increased heat radiation capacity to cool the gases as they pass through said body portion, and having two enlarged chambers at each end and a passage connecting said chambers, a thimble fitted in the cavity adjacent said plug provided with a plurality of wire gauze partitions, a conical valve located in the outer cavity of said body and cooperating with a conical valve seat, a hollow plug communicating with the latter cavity, and a pipe leading therefrom.

2. A whistle attachment for an internal
combustion engine comprising a hollow
metal plug adapted to be connected to the
combustion chamber, a blow-off valve con-
5 nected with said plug, connections between
said plug and the storage tank, wire gauze
partitions interposed in said connections for
preventing back fire, means surrounding
said gauze partitions for promoting heat

radiation, and a check valve appropriately 10
located in the attachment.

In testimony whereof, I have hereunto
subscribed my name.

ROBERT C. ADAMS.

Witnesses:

JOSEPH BERNSTEIN,
E. F. WICKS.
