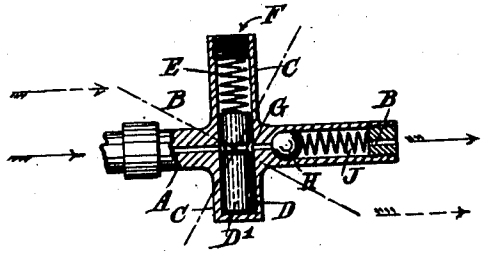
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APPLIANCE FOR AUTOMATICALLY GOVERNING THE FEED OF FUEL OIL TO INTERNAL COMBUSTION ENGINES OF THE TYPE OF WHICH THE CYLINDERS ROTATE.

APPLICATION FILED AUG. 9, 1918.

1,292,346. Patented Jan. 21, 1919.



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WILLIAM HENRY MARTYN, OF TENTERFIELD, NEW SOUTH WALES, AUSTRALIA, ASSIGNOR TO THOMAS HAMMOND MARTYN, OF SYDNEY, NEW SOUTH WALES, AUSTRALIA.

APPLIANCE FOR AUTOMATICALLY GOVERNING THE FEED OF FUEL-OIL TO INTERNAL-COMBUSTION ENGINES OF THE TYPE OF WHICH THE CYLINDERS ROTATE.

1,292,346. Specification of Letters Patent. Patented Jan. 21, 1919.

Application filed August 9, 1918. Serial No. 249,162.

To all whom it may concern:

Be it known that I, WILLIAM HENRY MARTYN, a subject of the King of Great Britain and Ireland, residing at Cowper street, Tenterfield, State of New South Wales, Commonwealth of Australia, have invented new and useful improvements in appliances for automatically governing the feed of fuel-oil to internal-combustion engines of the type in which the cylinders rotate, of which the following is a specification.

This invention is specially adapted to that class of internal combustion engines in which the cylinders rotate. In giving effect to the invention the appliance may be attached to the heads of the cylinders, or in any other position as near as possible to the point of combustion of the fuel, provided that the attachment be made to a part of the engine that rotates. In its simplest form the appliance consists of a small casting inserted in the line of the feed and transversely across this line is mounted the cylindrical governor against the outer end of which abuts a helical spring in compression. When the speed is too great the cylindrical governor will be thrown outward, by centrifugal force, against the resistance of the spring, thus partly, or entirely, closing the passage through which the fuel is fed.

In the accompanying drawing:—

The figure is a vertical section of the feed passage and the governor which lies transversely across the passage along which the fuel is fed.

A is a casting that will be inserted in the fuel feed passage at any suitable point; B is the line along which the fuel is fed; transversely across the fuel feed passage B is a cylindrical chamber C that is adapted to contain the governor D, which consists of a cylindrical block of metal that makes an easy fit with the wall of the cylindrical chamber C. The block D is maintained in its normal position by a helical spring E that will be inserted through the open end of the casting, which will be closed by a screw plug F that will also serve as a means of adjusting the compression of the spring E. The governor block D will, normally, cover the fuel passage B, but there will be an annular groove G normally in line with the passage B through which fuel can normally pass; but when centrifugal force operates causing the block D to move outward, the annular passage G will move outward, the part of the block below it partially or wholly closing the passage B so that there will be a diminished supply or the supply be wholly cut off. The governor block D will be provided with an axial passage D′, indicated by dotted line in the drawing, so that air can pass from above to below the block D, when it is moved outward by the operation by centrifugal force. The direction of the line of feed is indicated by the arrows. The appliance may be provided, on the exit side, with a back pressure valve H controlled by a spring J.

In engines where the velocity is very high, it will be advisable, in order that the governor be rendered more sensitive, that the installation of the appliance be not in the vertical plane of rotation of the engine, but at an angle thereto, as indicated by the dotted lines.

I claim—

1. A device of the class described comprising a casing formed with a fuel-feeding passage and a bore intersecting said passage between the ends thereof, a block movable in said bore and having a longitudinally extending bore and a groove formed therein, said groove being adapted to register with the fuel passage, and means for biasing said block to a position wherein said groove registers with said fuel passage.

2. A device of the class described comprising a casing formed with a fuel-feeding passage and a bore extending transversely and intersecting said passage between its ends, a block movable in said bore and having a groove formed therein adapted to register with said passage, means for biasing said block to a predetermined position, and a spring-pressed valve in said passage for preventing back-pressure therein.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM HENRY MARTYN.

Witnesses:

R. MASSER,

D. B. CAMPBELL.