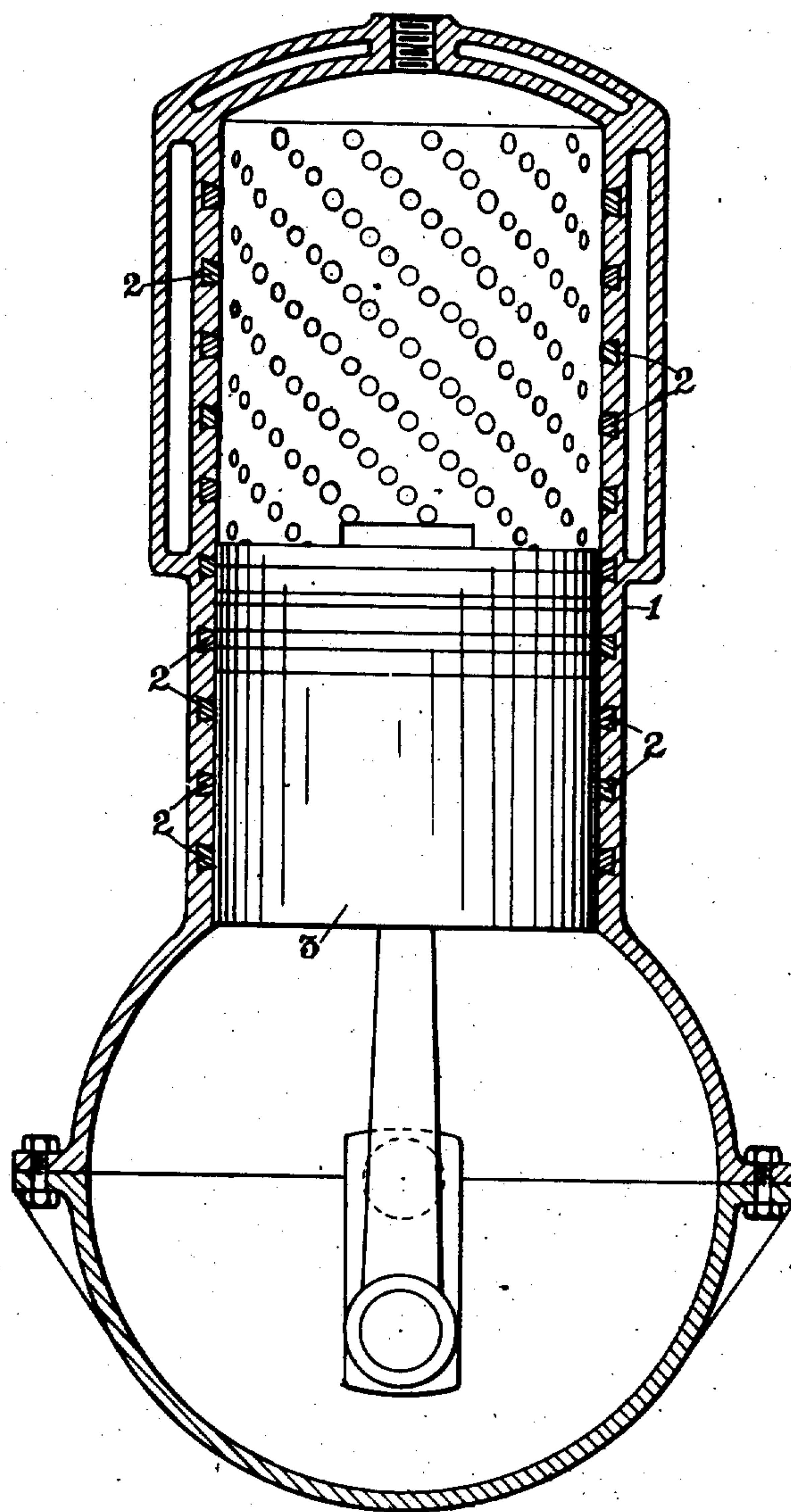


H. H. BOGGS.
ENGINE CYLINDER.
APPLICATION FILED JAN. 24, 1910.

974,854.

Patented Nov. 8, 1910.



Witnesses
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UNITED STATES PATENT OFFICE.

HENRY H. BOGGS, OF DETROIT, MICHIGAN.

ENGINE-CYLINDER.

974,854.

Specification of Letters Patent.

Patented Nov. 8, 1910.

Application filed January 24, 1910. Serial No. 539,704.

To all whom it may concern:

Be it known that I, HENRY H. BOGGS, 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 Engine-Cylinders, of which the following is a specification, reference being had therein to the accompanying drawings.

Owing to the heat developed in the cylinders of explosive engines and to the inaccessibility of the interiors, it is a matter of considerable difficulty to properly lubricate them in such manner as to prevent depositing of carbon in the cylinders and the fouling of the wearing surfaces, all to the detriment of the motors.

This invention relates to the cylinder of an explosive engine as an article of manufacture, in which provision is made that insures proper and permanent lubrication thereof.

The invention is also available for use in a steam engine, pump or the like.

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

The drawing is a view in longitudinal section of an engine cylinder embodying features of the invention.

Referring thereto, a cylinder 1, usually of cast metal, has insets 2 of graphitic material or like solid lubricant disposed in such manner in its inner periphery that the inner faces thereof, which are flush with the cylinder surface, sweep the entire periphery, substantially, of the piston 3 at each stroke. The physical structure of the insets is such

that they remain flush with the cylinder wall under wear. The insets are preferably cylindrical or conoidal and have enlarged inner ends to insure retention in the wall. They are usually disposed at regular intervals in staggered relation. By this construction, an engine cylinder is obtained which is self-lubricating and wears evenly and smoothly. The carbonizing attendant on the use of fluid or semi-fluid lubricant in explosive engines is avoided.

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

What I claim as my invention is:—

1. As an article of manufacture, an engine cylinder of cast metal whose inner periphery is provided with conoidal solid inserts of refractory lubricating material, the smaller end faces of the inserts being flush with the inner wall of the cylinder.

2. As an article of manufacture, an engine cylinder of cast metal and solid inserts of refractory lubricating material secured in the inner face thereof, said inserts being conoidal and being disposed with their smaller end faces flush with the inner wall of the cylinder the inserts being secured in place in the process of casting the cylinder.

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

HENRY H. BOGGS.

Witnesses:

OTTO F. BARTHEL,
ANNA M. DORR.