L. LAURIN.

INTERNAL COMBUSTION ENGINE.

APPLICATION FILED JUNE 24, 1914.

1,130,526. Patented Mar. 2, 1915.

Fig. 1.

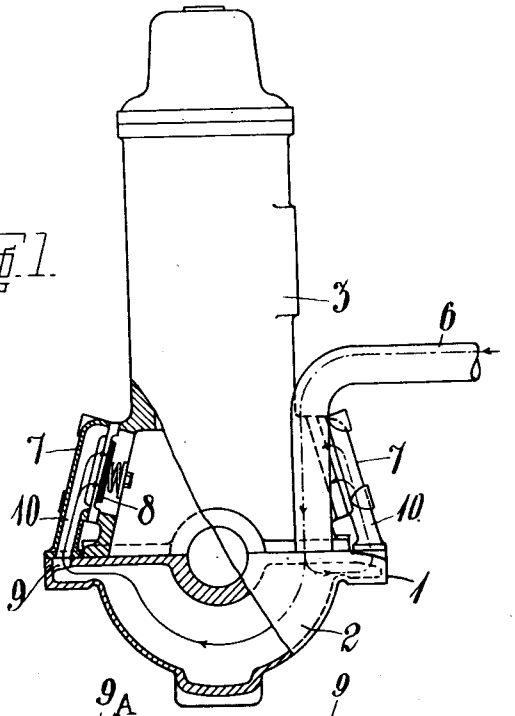


Fig. 2.

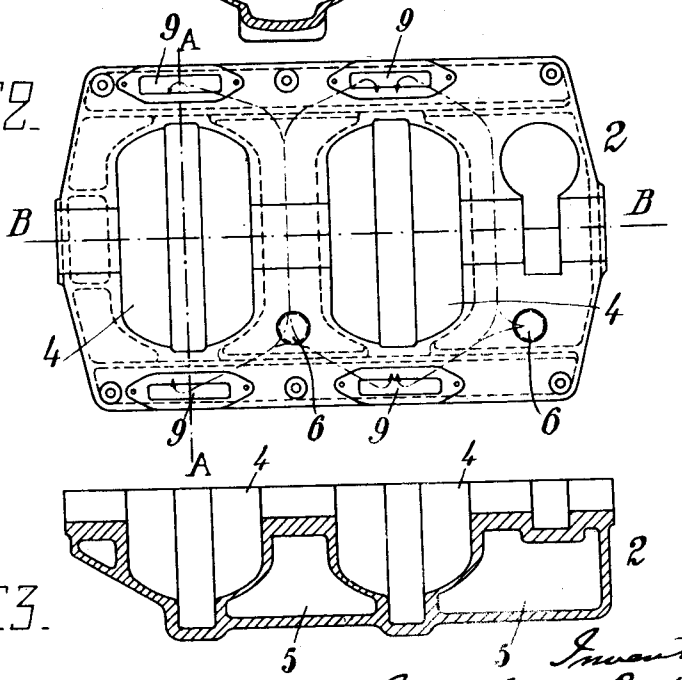


Fig. 3.

Witnesses
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UNITED STATES PATENT OFFICE.

LAURENTIUS LAURIN, OF LYSEKIL, SWEDEN.

INTERNAL-COMBUSTION ENGINE.

1,130,526. Specification of Letters Patent. Patented Mar. 2, 1915.

Application filed June 24, 1914. Serial No. 847,026.

To all whom it may concern:

Be it known that I, LAURENTIUS LAURIN, a citizen of the Kingdom of Sweden, residing at Lysekil, Sweden, have invented new and useful Improvements in Internal-Combustion Engines, of which the following is a specification.

The present invention relates to internal combustion engines provided with one or more closed crank chambers into which the air is sucked in through air suction valves located in the walls of the said crank chambers.

The invention has for its object to provide a simple device by means of which the noise caused by the passage of the air through said valves is deadened entirely or at least to a great extent.

The invention consists in that the usual flange of the lower part of the engine casing, by means of which said lower part is secured to the upper part of the said casing is made hollow, the cavity thus formed constituting a connection between the usual cavities of the walls of the lower part of the engine casing and the spaces inside the usual protecting covers of the suction valves, said spaces being in this case closed along the edges of the covers, while the said cavities of the walls of the lower part of the engine casing are in open communication with the atmosphere through one or more pipes or the like.

In the accompanying drawing I have shown one embodiment of my invention.

Figure 1 shows a side view and partial section of the casing of a two-cylinder engine, the section being taken on line A—A in Fig. 2. Fig. 2 shows the lower part of the engine casing viewed from above, and Fig. 3 is a vertical section of said part on line B—B in Fig. 2.

Referring to the drawing, the flange 1 of the lower part 2 of the engine casing, by means of which said part of the casing is secured to the upper part 3 thereof is made hollow. The cavity of the flange 1 communicates with the usual cavities 5 of the walls of the lower part 2 of the engine casing forming the lower part of the crank chamber or chambers 4, Figs 2 and 3. The cavities 5 communicate with the outer air for instance through one or more air pipes 6, Fig. 1. The protecting covers 7 arranged in the usual manner outside the air suction valves 8 differ from the protecting covers heretofore used in that the edges of the covers fit tightly to the upper part 3 of the engine casing. The spaces formed inside the covers 7 are connected with the cavity of the flange 1 by apertures 9 in the upper part of the flange and by downwardly directed extensions 10 of the covers 7.

The passage of the air through the pipes 6, the cavities 5, the flange 1, and the spaces inside the covers 7 is indicated by arrows in Figs. 1 and 2.

Having now described my invention what I claim as new and desire to secure by Letters Patent is:

An internal-combustion engine of the kind set forth, comprising a lower part having a wall in which is a cavity, an upper part, a suction valve located in the upper part, and a protective cover spaced from said valve; the lower part being provided with a hollow flange to which the upper part is secured; the cavity in said flange connecting the cavity in the wall of the lower part with the space between the suction valve and its protective cover, and the cavity in said wall being in open communication with the atmosphere.

In testimony that I claim the foregoing as my invention, I have signed my name in presence of two subscribing witnesses.

LAURENTIUS LAURIN.

Witnesses:
V. MUSSEY,
G. NAGUNARY.