WATER COOLED HEAT POWER ENGINE.
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Fig. 1

Fig. 2

Fig. 3

Witnesses

Inventor
Oskar Reissig.

By
Attorney

COLUMBIA PLANOGRAPH CO., WASHINGTON, D.C.
To all whom it may concern:

Be it known that I, Oskar Reissig, a subject of the King of Saxony, and residing at 63 Bismarck street, Charlottenburg, near Berlin, Germany, have invented certain new and useful Improvements in Water-Cooled Heat-Power Engines, of which the following is a specification.

In vertical heat power engines, especially the well known Knight gas engine, water-cooled cylinder covers are frequently employed, which are provided with an inwardly projecting part filled with water and thus contain water pockets. Hitherto it has not proved possible to empty these pockets by running off the water from the cylinder jackets, and for this purpose syringes or pumps had to be used by means of which the water was withdrawn from the pockets, which apparatus has usually been supplied specially by the manufacturers of these engines. Now it is a well known and easily explainable fact that the chauffeurs frequently neglected to make use of these syringes and consequently it frequently occurred that when frost was encountered the cylinder covers were burst by ice forming in them. By means of the present invention this drawback is obviated in the simplest possible manner.

The invention consists in connecting the water pocket of the cylinder cover with the cooling water space of the cylinder by means of a U-shaped pipe, which when the water is removed from the cylinder jackets will empty the water pocket, acting as a siphon.

Two constructional examples of the invention are illustrated in the drawing in three figures and moreover Figures 1 and 3 show longitudinal sections through the two constructions, and Fig. 2 shows a section on the line A—B of Fig. 1.

In the constructional example shown in Figs. 1 and 2, there is cast in the interior of the water space of the cylinder cover a pipe which reaches down almost to the bottom of the cover. Further, a pipe is conducted from the outside into the water space, the lower end of which extends below the lower end of the pipe. This pipe projects into the water jacket of the cylinder and thus forms a siphon in combination with the tube. If, therefore, the water is let off from the cooling jacket of the cylinder, this will also draw the water out of the cylinder cover in accordance with well known hydraulic laws.

In the constructional modification illustrated in Fig. 3, there is inserted in the cylinder cover a U-shaped tube which in like manner siphons off the contents of the water pocket when the cylinder jacket is emptied.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:

1. In a water cooled vertical heat power engine, a water cooled cylinder cover having an inwardly projecting part forming a pocket adapted to contain water, a U-shaped connection member between the water pocket of the cover and the cooling water space of the cylinder, the shorter end of said member projecting to the bottom of the water pocket, the longer end of the U-shaped member projecting into the water space of the cylinder, said member emptying the water pocket in the manner of a siphon when the water jacket is drained.

2. In a water cooled vertical heat power engine, a water cooled cylinder cover having an inwardly projecting part forming a pocket adapted to contain water, a U-shaped connection member between the water pocket of the cover and the cooling space of the cylinder, the shorter end of the U-shaped member being cast in the interior of the cover and projecting to the bottom of the water pocket, the longer end of the U-shaped member projecting from the water space of the cover into the water space of the cylinder, said member emptying the water pocket in the manner of a siphon when the water jacket is drained.

In witness whereof I have hereunto signed my name this 28th day of February 1911, in the presence of two subscribing witnesses.

Oskar Reissig.

Witnesses:

Wolfgang Haupt,
Henry Hasper.