

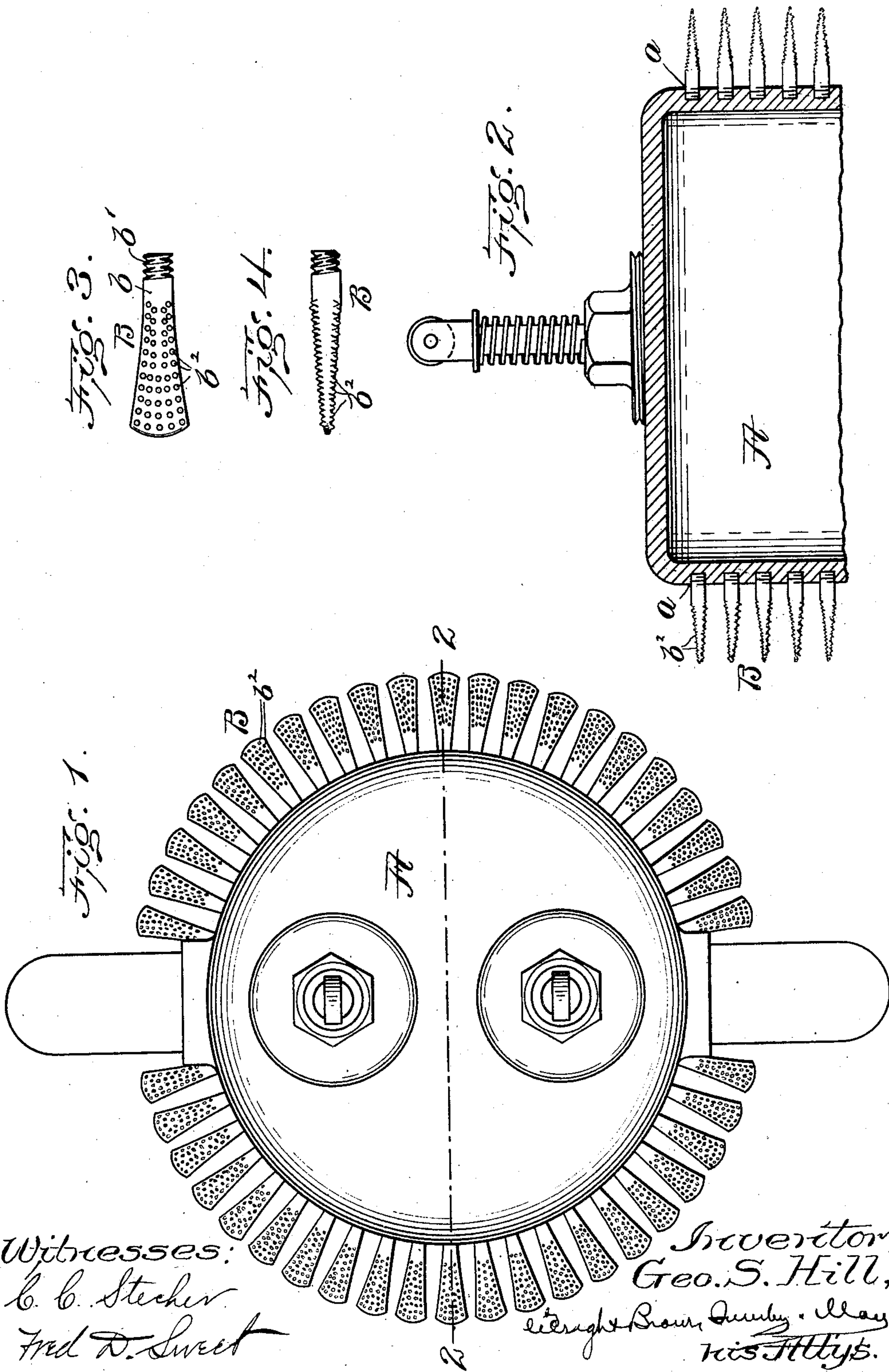
No. 898,107

PATENTED SEPT. 8, 1908.

G. S. HILL.

HEAT DISSIPATING DEVICE FOR GAS ENGINES.

APPLICATION FILED JULY 27, 1905.



Witnesses:
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UNITED STATES PATENT OFFICE.

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HEAT-DISSIPATING DEVICE FOR GAS-ENGINES.

No. 898,107.

Specification of Letters Patent.

Patented Sept. 8, 1908.

Application filed July 27, 1905. Serial No. 271,449.

To all whom it may concern:

Be it known that I, GEORGE S. HILL, of Bradford, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Heat-Dissipating Devices for Gas-Engines, of which the following is a specification.

This invention relates to devices for dissipating the heat generated by gas-engines, and has particular reference to heat-dissipating devices of the pin-type which are secured to such portions of the cylinder or engine-casing as are required to be kept as cool as possible by the circulation of air around said cylinder or casing.

The object of my invention is to provide a simple, economical and easily-removable pin of this type which can be set so as to deflect currents of air among the pins from one to another.

To these ends the invention consists in the device and the construction thereof substantially as hereinafter described and claimed.

Of the accompanying drawings,—Figure 1 represents an end elevation of a cylinder or engine-casing provided with a number of heat-dissipating pins constructed in accordance with my invention. Fig. 2 represents a section on line 2—2 of Fig. 1. Figs. 3 and 4 represent side elevations, somewhat enlarged, of the pins shown in the other figures, said Figs. 3 and 4 being views taken from different points.

In the drawings,—A represents a portion of a cylinder or casing of an ordinary type of gas-engine, said casing being formed with numerous holes or recesses *a* which are internally threaded. Each of the pins B comprising my invention consists of a cylindrical portion *b* externally threaded at the end or tip *b'* to fit the recesses *a* of the cylinder or casing. The other portion of each pin B is flattened so as to taper in one direction, as shown in Fig. 4, and to spread out fan-shaped in another direction, as represented in Fig. 3. This tapered or fan-shaped portion is provided with a large number of small protuberances *b²* which are produced in the act of stamping or pressing the pins, or otherwise, such protuberances serving to aid in the dissipating of the heat which is conducted radially from the cylinder or casing by means of the pins. The fan-shape of the pins enables them to present broad surfaces for the

wind to impinge against, when the portion of the machinery to which the pins are applied is moving in the direction toward or from the point of view indicated in Fig. 1. By setting the pins in their recesses so that the fan-shaped portions are somewhat angular, the air will be deflected from one pin to another so as to thoroughly absorb the heat radiated from the pins. Any suitable metal may be employed as the material from which the pins are made, but I prefer aluminum. And the said pins may be made by any preferred method, either casting or stamping. For instance, they may be made from cut lengths of wire treated at one end to form the threaded tips *b'*, and the other end subjected to the pressing action of dies in a suitable press.

I claim:—

1. A heat-dissipating device for gas-engines, comprising a fan-shaped pin having integral protuberances.

2. A heat-dissipating device for gas-engines, comprising a pin threaded at one end and flattened and flaring toward the other end and provided with protuberances substantially as and for the purpose set forth.

3. A heat-dissipating device for gas-engines comprising a fan-shaped pin.

4. A heat-dissipating device for gas-engines, comprising a pin cylindrical at one end, tapering in one axial plane, and flaring in an axial plane at right angles thereto, to a wide, thin edge at the other end.

5. A heat-dissipating device for gas-engines, comprising a pin cylindrical at one end, and compressed at the other end to a width greater, and a thickness less, than the diameter of the cylindrical end.

6. The combination with a metallic vessel in which heat is generated, of a plurality of metal pins having fan shaped outer ends, said pins being independent of each other and rotatably mounted on said vessel, whereby their fan-shaped outer portions may deflect passing air from one pin to another to absorb heat radiated by the pins from said vessel.

In testimony whereof I have affixed my signature, in presence of two witnesses.

GEORGE S. HILL.

Witnesses:

M. B. MAY,
C. C. STECHER.