

C. L. BAILEY.
HEAT RADIATING DEVICE.
APPLICATION FILED NOV. 25, 1911.

1,060,733.

Patented May 6, 1913.

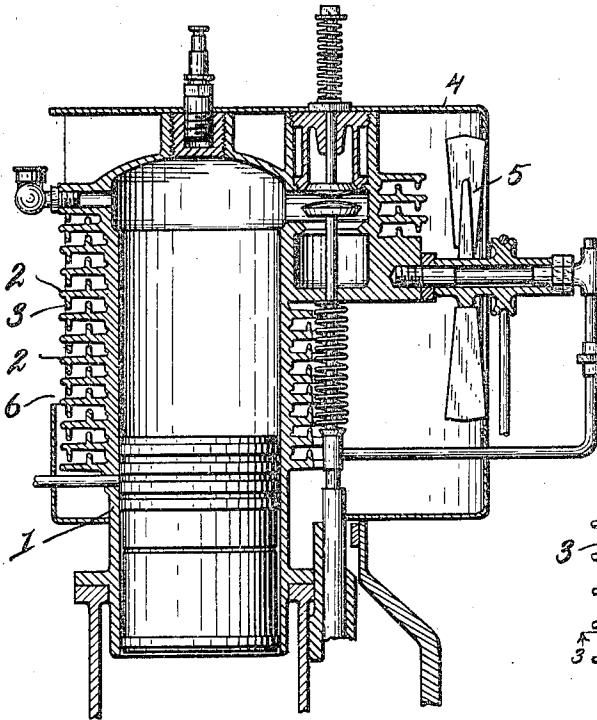


Fig. I.

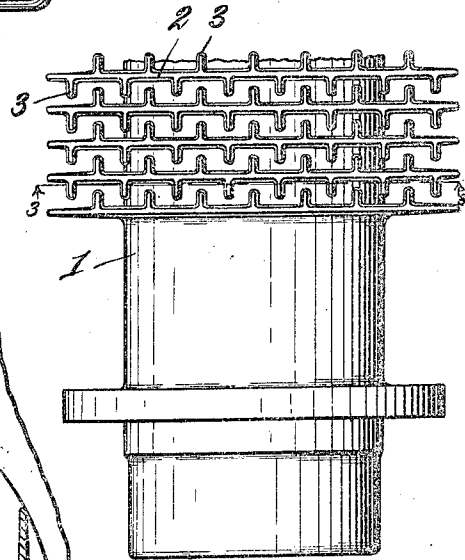


Fig. II.

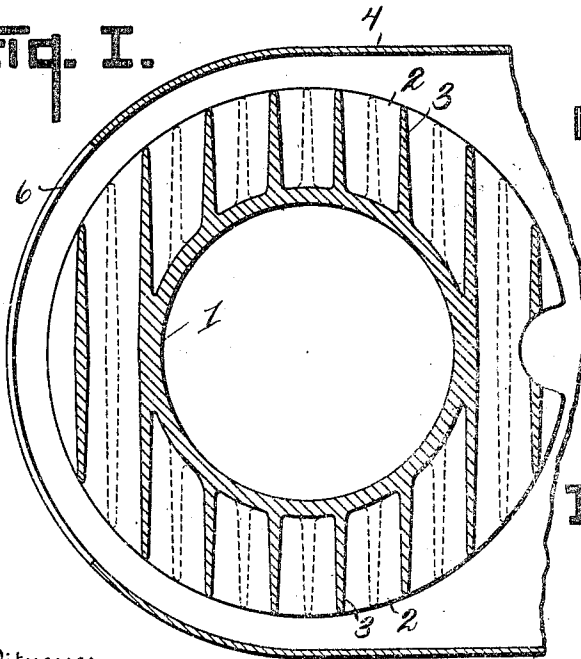


Fig. III.

Witnesses
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UNITED STATES PATENT OFFICE.

CURTIS L. BAILEY, OF LANSING, MICHIGAN, ASSIGNOR TO THE "NEW-WAY" MOTOR CO., OF LANSING, MICHIGAN.

HEAT-RADIATING DEVICE.

1,060,733.

Specification of Letters Patent.

Patented May 6, 1913.

Application filed November 25, 1911. Serial No. 662,338.

To all whom it may concern:

Be it known that I, CURTIS L. BAILEY, a citizen of the United States, residing at the city of Lansing, county of Ingham, and State of Michigan, have invented certain new and useful Improvements in Heat-Radiating Devices, of which the following is a specification.

This invention relates to improvements in heat radiating devices.

My invention is particularly applicable and I illustrate the same in the accompanying drawing embodied in a cylinder of an explosion engine although certain features may be readily adapted and are desirable for use in other relations.

The main objects of this invention are, first, to provide an improved heat radiating device which is very effective; second, to provide an improved heat radiating device for explosion engine cylinders which is very efficient and which may be formed as an integral casting and one in which the walls of the cylinder are reinforced and strengthened by the heat radiating means.

Further objects, and objects relating to structural details, will definitely appear from the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in the following specification.

The invention is clearly defined and pointed out in the claim.

A structure which is a preferred embodiment of my invention is clearly illustrated in the accompanying drawing, forming a part of this specification, in which:

Figure I is a detail vertical section of an explosion engine structure embodying the features of my invention. Fig. II is a detail side elevation of the engine cylinder 1. Fig. III is a detail transverse section taken on a line corresponding to line 3—3 of Fig. II, the cylinder 1 and the casing only being shown.

In the drawing, similar reference characters refer to similar parts throughout the several views.

Referring to the drawing, the cylinder 1 is provided with circumferentially arranged spaced flanges 2. The flanges 2 are provided with ribs 3 on each side. These ribs are

arranged in substantially parallel planes as is clearly illustrated in Fig. III.

The flanges 2 are tapered outwardly as are also the ribs 3. The tapering of the flanges and their ribs is to facilitate manufacture as the mold can be formed in halves and the patterns easily drawn. The flanges are reinforced and supported by these ribs and the cylinder wall is in turn reinforced and supported by the flanges and ribs so that it can be made comparatively thin, which of course, facilitates radiation and it is at the same time well reinforced throughout.

The ribs 3 are disposed in an alternating relation, the ribs on the opposed or confronting faces of adjacent flanges being alternated so that the ribs of one flange project between the ribs of the adjacent flanges.

In the embodiment illustrated, the cylinder is provided with a casing 4 having a fan 5 arranged at one side to deliver against the side of the cylinder, the discharge opening 6 of the casing being on the opposite side. This casing and fan are arranged so that the current of air is delivered transversely of the ribs 3 and passes in a zigzag course between the flanges, being deflected by the ribs against the walls of the flanges so that it is very effectively brought into contact with the radiating surfaces.

The flanges when supported by the ribs arranged as shown, may be made thin and also be placed quite close together which provides a very large radiating surface. At the same time, the radiating flanges and their ribs serve as stated, to reinforce and support the wall of the cylinder so that it may be made thin.

I do not describe the details of the engine body, valves and operating means illustrated, as they form no part of my present invention and will be readily understood by those skilled in the art to which this invention relates.

I have illustrated and described my improved heat radiating device as embodied in an engine cylinder as it is particularly designed by me for that purpose, and certain features are particularly adapted for embodiment in such a structure. I desire, however, to be understood, as claiming my improvements specifically in the form illus-

trated as well as broadly within the scope of the appended claim.

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

In a heat radiating device, the combination of a hollow body, a plurality of circumferentially arranged spaced heat radiating flanges on said body having ribs on their sides, said ribs being disposed in substantially parallel planes, the ribs on opposed sides of adjacent flanges being disposed in

an alternating relation and with the outer edges of the ribs of one flange projecting between the opposed ribs, said body, flanges and ribs being one integral casting.

In witness whereof, I have hereunto set my hand and seal in the presence of two witnesses.

CURTIS L. BAILEY. [L. s.]

Witnesses:

E. W. GOODNOW,
W. W. COLLINS.