No. 808,490.

PATENTED DEC. 26, 1905.

W. B. SWAN.

AIR COOLING CONSTRUCTION FOR ENGINE CYLINDERS, RADIATORS, &c.

APPLICATION FILED FEB. 16, 1904.

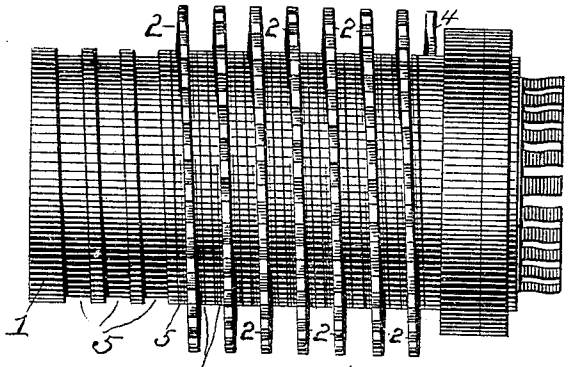


Fig. 1.

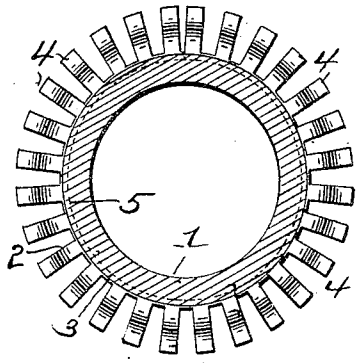


Fig. 2.

Fig. 3.

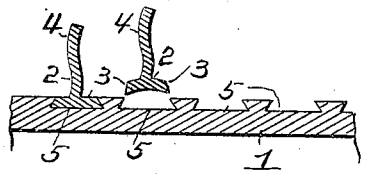


Fig. 4.

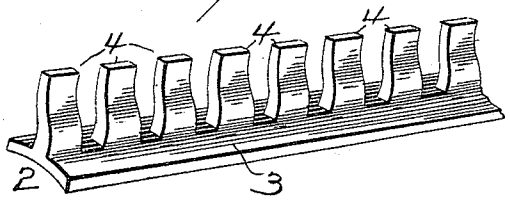


Fig. 5.

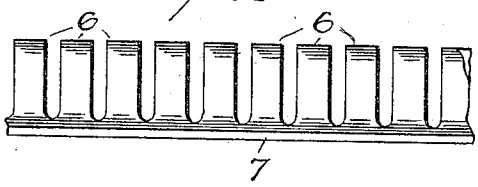
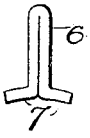


Fig. 6.



WITNESSES

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AIR-COOLING CONSTRUCTION FOR ENGINE-CYLINDERS, RADIATORS, &c.

No. 808,490. Specification of Letters Patent. Patented Dec. 26, 1905.

Application filed February 16, 1904. Serial No. 193,914.

To all whom it may concern:

Be it known that I, WILLIAM B. SWAN, a resident of Seymour, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Air-Cooling Constructions for Engine-Cylinders, Radiators, &c.; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improved air-cooling construction for engine-cylinders, radiators, and the like, the object of the invention being to provide improved means for securing in place a strip or strips of copper or like metal of large surface to the engine-cylinder, radiator-tubes, &c.; and it consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in side elevation, illustrating my improvements on an engine-cylinder. Fig. 2 is a sectional view thereof. Fig. 3 is an enlarged view in section. Fig. 4 is a detail view of the attached strip, and Figs. 5 and 6 are views of a modification.

1 represents an engine-cylinder, and 2 my improved strip thereon. Cylinders of this character are usually made of steel or like metal, and my improved strip is of copper to best relieve the cylinder of its heat and expose the same to the great radiating-surface of the strip to throw off the same. The strip 2 comprises a base 3 and a series of wavy teeth or projections 4, projecting at right angles to the base 3. The bottom of base 3 is curved crosswise and has inclined sides, forming the same into a general dovetail throughout. The cylinder 1 or other casing on which my improvements are employed is made with a dovetailed groove or grooves 5, either arranged spirally, as shown, or in the form of rings around the cylinder longitudinally thereof or otherwise, as preferred. The base 3 of strip 2 is inserted in the groove 5 and when pressed therein owing to its curvature in cross-section will expand laterally and snugly fit into the dovetailed groove and be firmly locked therein, forming a fixed part of the device with which it is used and greatly strengthening the same.

In Figs. 5 and 6 I illustrate a modified form of strip composed of sheet metal bent longitudinally to form the vertical teeth 6 and laterally to form the base 7, this strip being inserted into the groove 5, as above explained.

The end of the cylinder may also be provided with my improved cooling-strips, and they may be used in various ways other than described and with various other devices or machines without departing from my invention. Hence I do not restrict myself to the precise details set forth, but consider myself at liberty to make such slight changes and alterations as fairly fall within the spirit and scope of my invention.

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

1. The combination of a body having a groove therein and a metal strip of softer metal, said strip comprising a base to enter said groove and a series of teeth projecting outwardly from said base in line with the longitudinal axis of the latter, the thickness of the teeth forming the strip being appreciably less than the width of the base, from the center of which they project.

2. The combination of a body having a circumferential groove, and a strip comprising a base seated in said circumferential groove and a series of teeth projecting from said base in line with the longitudinal axis thereof, the thickness of the teeth forming the strip being appreciably less than the width of the base, from the center of which they project.

3. The combination of a body having a broad groove with inclined side walls, and a strip comprising a concavo-convex base provided with inclined side edges, and a series of teeth projecting from the base at points intermediate of the edges, said base adapted to enter said groove and to be forced into conformity therewith.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WM. B. SWAN.

Witnesses:
J. B. MAYNARD,
R. K. DEAN.