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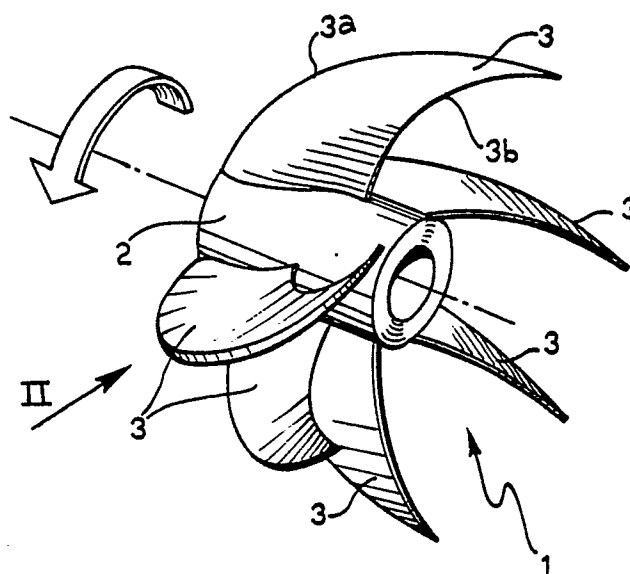
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⑤④ **Axial fan rotor for cooling the radiator of the cooling system of an internal combustion engine for motor vehicles.**

⑤⑦ An axial fan rotor (1) for cooling the radiator of the cooling system of an internal combustion engine for motor vehicles, including a hub (2) carrying a ring of radial blades (3), each of which is generally sabre-shaped with a pronounced backward curvature and an arcuate leading edge (3a) like the head of a torpedo.

FIG. 1



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Axial fan rotor for cooling the radiator of the cooling system of an internal combustion engine for motor vehicles

The present invention relates in general to axial fans intended to be used for cooling the radiator of the cooling system of internal combustion engines for motor vehicles.

More particularly, the invention concerns an axial fan rotor of the type comprising a hub carrying a ring of radial blades.

The object of the present invention is to produce an axial fan rotor of the above-specified type, having a conformation which provides better performance in terms of efficiency and quietness of operation.

According to the invention, this object is achieved by virtue of the fact that each blade is generally sabre-shaped with a pronounced backward curvature and an arcuate leading edge like the head of a torpedo.

The invention will now be described in detail with reference to the appended drawings, in which:

Figure 1 is a schematic perspective view of an axial fan rotor according to the invention,

Figure 2 is a side elevation taken on the arrow II of Figure 1, and

Figure 3 is a partial front elevational view taken on the arrow III of Figure 2.

With reference to the drawings, an axial fan rotor for cooling the radiator of the cooling system of an internal combustion engine for motor vehicles is generally indicated 1.

The rotor 1, which is conveniently formed from a single piece of moulded plastics material, comprises a central hub 2 from which extends a plurality of radial blades 3 having generally curved profiles, as illustrated in detail in Figure 3.

According to the invention, each blade 3 is generally sabre-shaped with a pronounced backward curvature and with an arcuate leading edge 3a and an arcuate trailing edge 3b. In particular, the curvature of the leading edges 3a is such as to give the rotor 1 an overall shape which is similar to that of a torpedo head.

By virtue of the above-described conformation, the rotor according to the invention enables better efficiency and quieter operation to be achieved in use.

(3) is generally sabre-shaped with a pronounced backward curvature and an arcuate leading edge (3a) substantially like the head of a torpedo.

Claims

An axial fan rotor for cooling the radiator of the cooling system of an internal combustion engine for motor vehicles, including a hub carrying a ring of radial blades, characterised in that each blade

FIG. 1

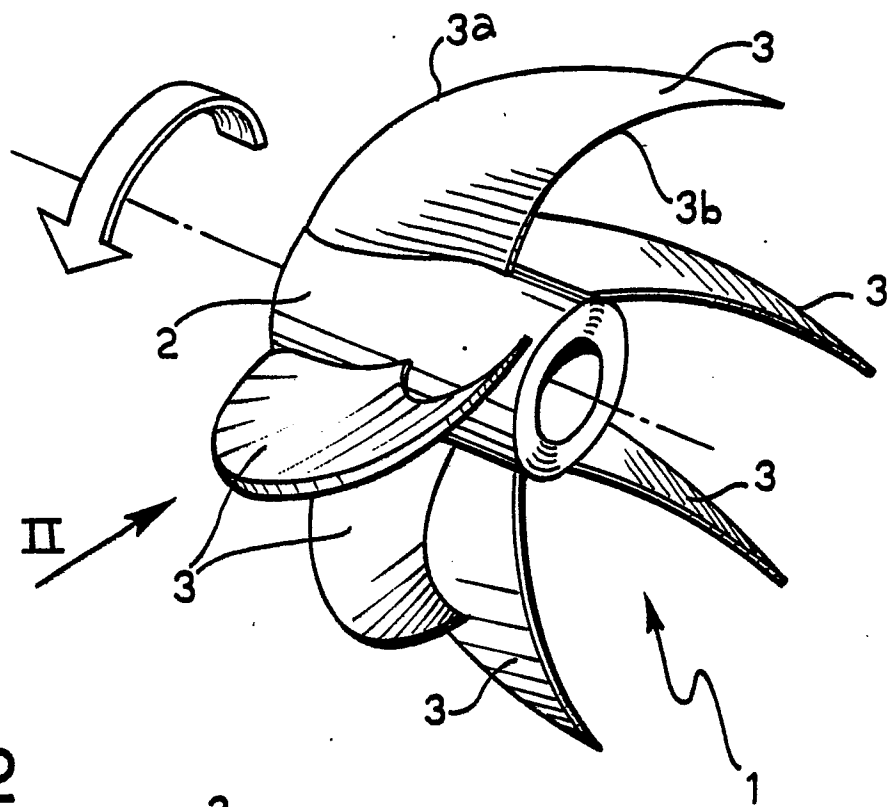


FIG. 2

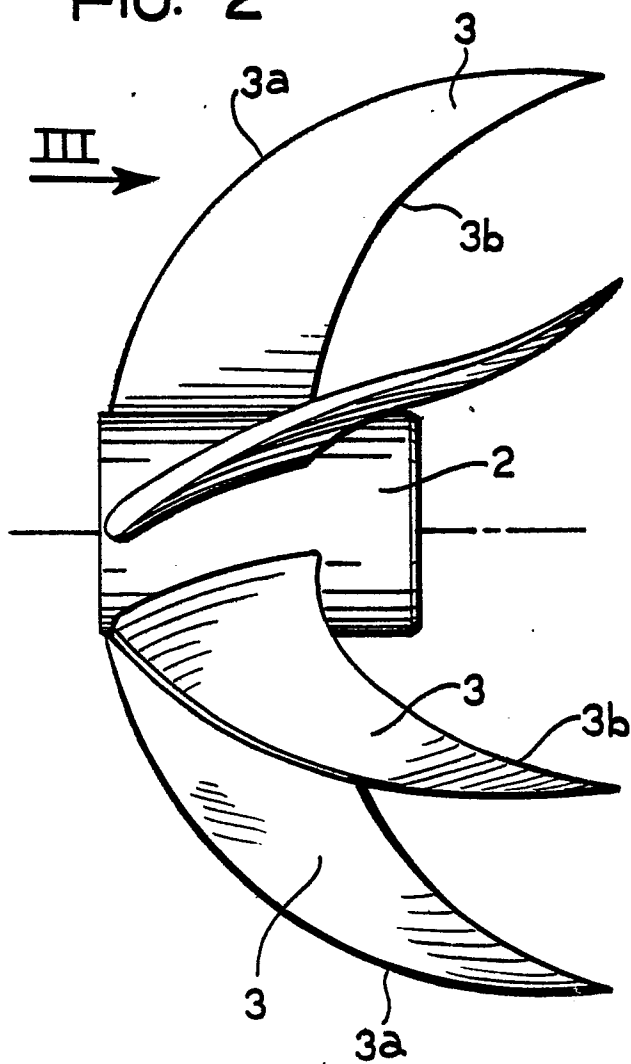
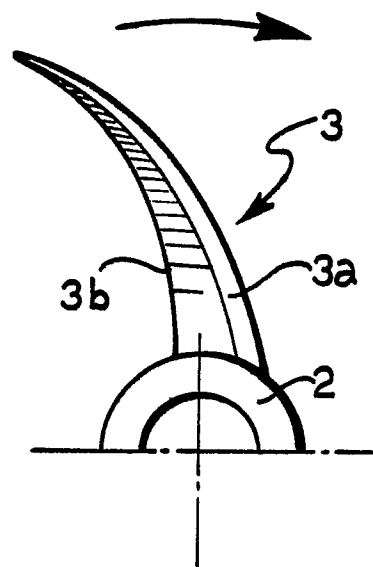


FIG. 3





| DOCUMENTS CONSIDERED TO BE RELEVANT | | | |
|---|---|---|--|
| Category | Citation of document with indication, where appropriate, of relevant passages | Relevant to claim | CLASSIFICATION OF THE APPLICATION (Int. Cl. 4) |
| X | US-A-1 352 848 (STANYO) * Page 2, lines 5-22; figures * --- | 1 | F 04 D 29/38 |
| A | GB-A- 459 206 (HARTZELL INDUSTRIES) * Page 1, line 89 - page 2, line 52; figures * ----- | 1 | |
| | | | TECHNICAL FIELDS SEARCHED (Int. Cl.4) |
| | | | F 04 D 29/00 |
| The present search report has been drawn up for all claims | | | |
| Place of search THE HAGUE | | Date of completion of the search 23-09-1988 | Examiner KAPOULAS T. |
| CATEGORY OF CITED DOCUMENTS | | | |
| X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document | | T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document | |