S. R. SHELDON.

FAN BLADE.

APPLICATION FILED MAR. 30, 1917.

1,250,681. Patented Dec. 18, 1917.

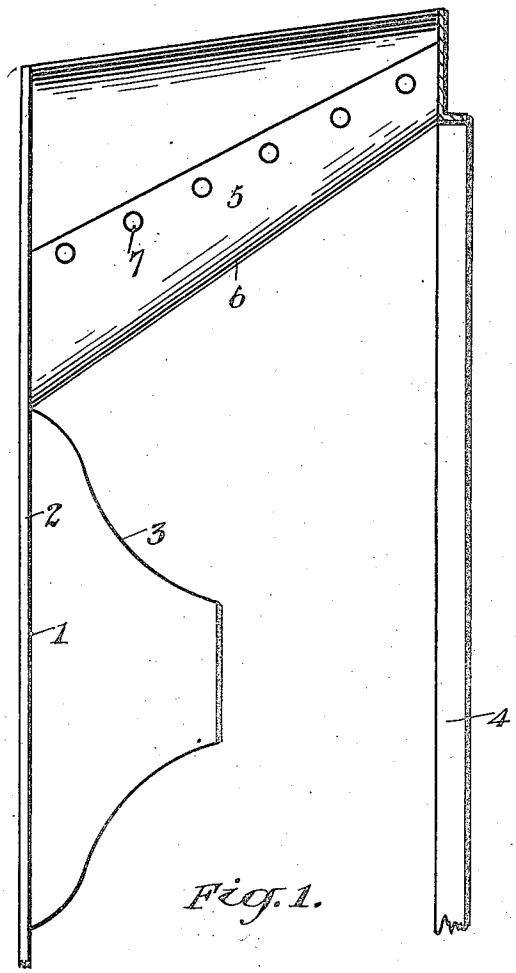


Fig. 1.

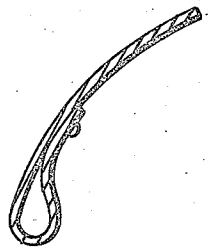


Fig. 3.

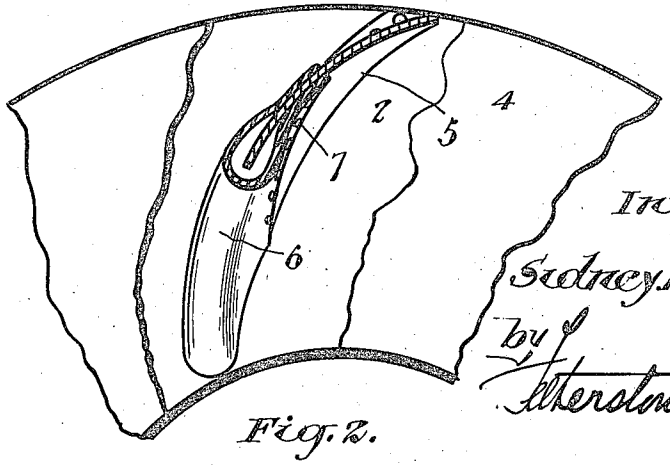


Fig. 2.

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UNITED STATES PATENT OFFICE.

SIDNEY RANDOLPH SHELDON, OF GALT, ONTARIO, CANADA.

FAN-BLADE.

1,250,681. Specification of Letters Patent. Patented Dec. 18, 1917.

Application filed March 30, 1917. Serial No. 158,726.

To all whom it may concern:

Be it known that I, SIDNEY RANDOLPH SHELDON, of the city of Galt, in the county of Waterloo, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Fan-Blades, of which the following is the specification.

My invention relates to improvements in fan blades and the object of the invention is to devise a fan blade so formed as to eliminate the sharp shrill noise caused by the sharp edge of the blade cutting through the air and to produce a low toned humming noise which will merge in with the sound of the operating machinery of a factory and, therefore, be unnoticeable and it consists essentially of a fan blade having an enlarged forward edge portion having the contour of that portion cutting into the air rounded as hereinafter more particularly explained by the following specification.

Figure 1, is an edge view partially in section of a portion of a fan frame for carrying the blades and a blade constructed in accordance with my invention mounted therein.

Fig. 2, is a face elevation of a fragment of a fan showing a portion of the annular fan blade supporting plate broken away to exhibit the fan blade construction.

Fig. 3, is a detail of an alternate construction of blade.

In the drawings like letters of reference indicate corresponding parts in the various figures.

1 indicates the fan frame comprising the back plate 2 to which the hub 3 is secured and the annular front plate 4 spaced apart from the back plate 2 and between which the fan blades 5 extend in the usual manner.

Ordinarily a fan blade is made out of a thin metal having a comparatively sharp edge which cuts through the air producing a sharp shrill noise. To overcome this defect I have formed the front edge of the fan blade with an enlarged portion 6 preferably formed loop-shaped, the free ends of the loop being secured to the upper and lower face of the blade, from which point the loop gradually spreads outward to form a substantially semi-circular end.

In Fig. 2, I have shown the loop portion 6 separated from the fan blade and attached thereto by rivets 7 passing through the fan blade and the free ends of the loop.

In Fig. 3, I have shown an alternative construction in which the loop is made integral with the blade, the loop being formed by a blade extension which is turned inwardly, and riveted to the lower face of the fan blade. This enlargement might also be constructed by casting a strip of metal of the required form having its outer edge rounded and its inner edge recessed so as to receive the blade edge, such recessed portion being riveted or otherwise secured to the blade.

It will thus be seen by this construction that I have provided a blade edge which has a broad rounded outer edge portion which in cutting through the air produces a low humming tone which will merge in with the general noise of a factory and be unnoticeable and will, therefore, eliminate the disagreeable sound commonly caused by a rotating fan.

What I claim as my invention is.

1. A high speed fan blade having its forward edge provided with a loop portion presenting a rounded cutting edge.

2. A high speed fan blade comprising a loop member extending from end to end of the forward edge of the blade and suitably secured thereto.

SIDNEY RANDOLPH SHELDON.

Witnesses:
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