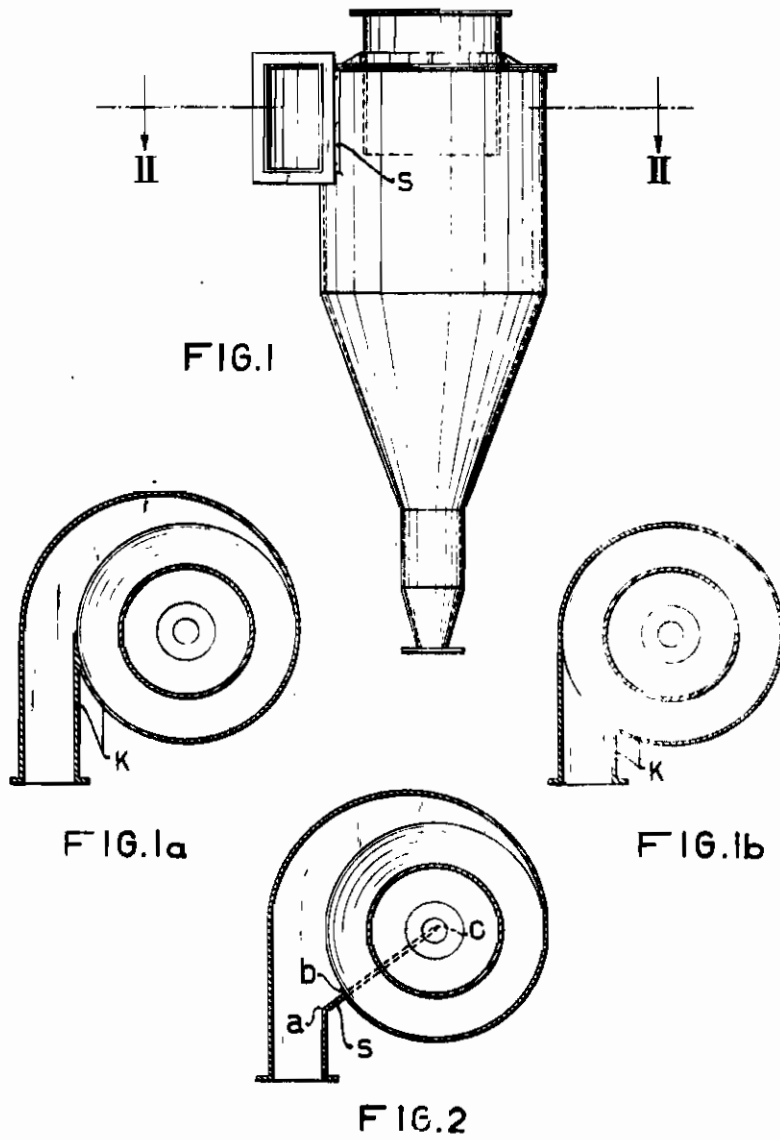


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# ALIEN PROPERTY CUSTODIAN

## CYCLONES

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A cyclone usually comprises a substantially cylindrical casing merging, at its lower end, into an inverted conical part provided with a bottom outlet for the dust, said casing having in its top wall a cleaned gas outlet and in its cylindrical wall a tangential dust-laden gas inlet nozzle of substantially rectangular cross-section.

Hitherto said inlet nozzle has been so arranged that either its flat side wall facing the cylindrical casing, or its opposite side wall extends unto the line where it meets the cylindrical wall of the casing, as indicated in cross-section in Fig. 1a and in Fig. 1b, respectively of the annexed drawing. Intermediate forms are also often found in practice. In all these constructions, that flat side wall of the inlet nozzle, which faces the cylindrical casing, forms together with the adjacent part of the casing, a sharp wedge designated by K in said figures.

In accordance with my present invention, said wedge is truncated, for instance along a plane passing substantially through the axis of the

cylindrical casing, so that the radial length of the wall portion interconnecting said nozzle wall with the cylindrical casing is at least one tenth, and preferably at least two or three tenths of the radius of the cylinder.

Figs. 1 and 2 are a side elevation and a cross-section along the line II—II in Fig. 1, respectively, of a cyclone constructed in accordance with this invention. The aforesaid wall portion is designated by S. The length  $a-b$  here is about  $0.2 b-c$ .

Truncating the wedge as described does not or not appreciably affect the efficiency of the dust separation, but it considerably reduces the resistance of the cyclone, whose capacity is thus increased as compared with that of an equally sized normal cyclone.

Instead of being truncated along a plane, as illustrated in Fig. 2, the wedge may be truncated along a more or less cylindrical surface.

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