

Title (en)

SPRAY NOZZLE, AND BURNER AND COMBUSTION DEVICE EQUIPPED WITH SAME

Title (de)

SPRÜHDÜSE UND BRENNER SOWIE VERBRENNUNGSVORRICHTUNG DAMIT

Title (fr)

BOSE DE PULVÉRISATION ET BRÛLEUR ET DISPOSITIF DE COMBUSTION ÉQUIPÉS DE CELLE-CI

Publication

**EP 2881662 A4 20160406 (EN)**

Application

**EP 13827932 A 20130805**

Priority

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Abstract (en)

[origin: EP2881662A1] An object of the present invention is to provide a spray nozzle that can facilitate atomization of spray fluid and can also reduce the amount of spray medium to be used and a force with which the spray medium is pressurized. To achieve the above object, a spray nozzle in the present invention, comprising: at least two spray fluid flow paths for flowing a spray fluid flows; at least two spray medium flow paths for flowing a spray medium, in each of which joins a relevant spray fluid flow path at a first joining part; at least two mixed fluid flow paths, in each of which a mixed fluid of the spray fluid and the spray medium that have joined together at the first joining part for flowing the mixed fluid and which are formed so as to face each other and allow mixed fluids to flow oppositely and have a second joining part at which the mixed fluids flowing oppositely collide with each other and join together; and an outlet hole from which the mixed fluids that have joined at the second joining part are jetted; wherein in each mixed fluid flow path, a bent part at which a direction of a flow of the mixed fluid is changed is formed between the first joining part and the second joining part.

IPC 8 full level

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Citation (search report)

- [X] US 4645129 A 19870224 - TERRADE FRANCOIS [FR], et al
- [I] JP 2968712 B2 19991102
- [A] WO 2011152444 A1 20111208 - BABCOCK HITACHI KK [JP], et al
- See references of WO 2014024813A1

Cited by

WO2019001996A1; CN106122954A; US2016230999A1; US10113746B2; FR3068113A1; US9970356B2; US11698188B2

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