Title (en)

An automatic swimming pool cleaner.

Title (de)

Automatische Vorrichtung für die Reinigung eines Schwimmbeckens.

Title (fr)

Appareil automatique pour nettoyage de piscines.

Publication

EP 0476413 A2 19920325 (EN)

Application

EP 91114781 A 19910902

Priority

US 58642590 A 19900921

Abstract (en)

A suction head (1) for a swimming pool cleaner comprising a housing (2) which is open at its lower side and has inclined bristles (9) attached to its lower edge for supporting on a surface to be cleaned. The housing (2) has a rotary sleeve (4) mounted to its top for connection of a suction hose in turn to be connected to a water suction pump. Said sleeve opens (4) in a chamber (32) within the housing (2) in which a vibratory element (11) is pivotally mounted, said element (11) having a crescent or air-foil shape. By a flow of water sucked through said chamber (32), the vibratory element (11) is automatically brought into a vibrating movement which imparts pulsations on the suction head (1). Thereby, the inclined bristles (9) are bent and straightened repetitively, resulting in a forward thrust moving the suction head over the surface to be cleaned. At least one foot is disposed in the housing (2) which is cyclically displaced vertically by a driving mechanism driven by the movement of the vibratory element (11) and returned by return springs (29). Said foot cyclically lifts off the suction head (1) at one side, resulting in a rotational movement of the suction head (1) about a vertical axis so as to change the direction of forward movement of the suction head. <IMAGE>

IPC 1-7

E04H 4/16

IPC 8 full level

E04H 4/16 (2006.01)

CPC (source: EP)

E04H 4/1654 (2013.01); **E04H 4/1663** (2013.01)

Cited by

EP0558337A1; CN111820814A; EP0726999A4; US5404607A; EP0559477A1; US6292969B1; EP0565226A1; US5974647A; US5664275A; USD1043011S; US5386607A; AU663921B2

Designated contracting state (EPC)

DE ES FR GB IT

DOCDB simple family (publication)

EP 0476413 A2 19920325; **EP 0476413 A3 19920617**; **EP 0476413 B1 19961211**; AU 643831 B2 19931125; AU 8461291 A 19920326; BR 9104046 A 19920602; CA 2051936 A1 19920322; CA 2051936 C 19941213; DE 69123524 D1 19970123; DE 69123524 T2 19970515; ES 2096607 T3 19970316; HK 1008060 A1 19990430; NZ 239886 A 19940826; ZA 917026 B 19920527

DOCDB simple family (application)

EP 91114781 A 19910902; AU 8461291 A 19910920; BR 9104046 A 19910920; CA 2051936 A 19910920; DE 69123524 T 19910902; ES 91114781 T 19910902; HK 98107242 A 19980627; NZ 23988691 A 19910920; ZA 917026 A 19910904