

Title (en)

BLADDER WATER GUN, IMPROVED BLADDER AND NOZZLE

Title (de)

WASSERPISTOLE MIT VERBESSERUNGEN AN BLASE UND DÜSE

Title (fr)

PISTOLET A EAU A POCHE EXTENSIBLE, POCHE EXTENSIBLE AMELIOREE ET GICLEUR

Publication

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Application

EP 97932463 A 19970627

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- US 67293396 A 19960628

Abstract (en)

[origin: WO9800214A1] An expandable bladder toy water gun (1) is provided. It includes a main housing (3) having a barrel (9), a water ejection nozzle (11), a handle (5), a trigger (7), a water storage tank (33), a hand pump (45) as well as an inflatable bladder (13) connected to the main housing (3). The pump (45) is connected to both the tank (33) and the bladder (13). There is a bladder release valve (31) with an upstream side connected to the bladder (13) and a downstream side connected to the nozzle (11) for water ejection when the trigger (7) is pulled. The elasticity of the bladder (13) is used as the motive force for liquid ejection. The bladder is a tubular member which has a section (91) of weakened elastic strength relative to the remainder of the member. In one embodiment, the bladder has a variable diameter, larger at its front end and smaller at its back end. In another embodiment, the bladder has a constant diameter with a wall thickness gradient. The nozzle (11) includes a turbulence control member (213) for enhanced laminar flow ejection which control member has a plurality of linear stream guidance walls.

IPC 1-7

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IPC 8 full level

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Cited by

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WO 9800214 A1 19980108; AT E302052 T1 20050915; AU 3591797 A 19980121; AU 726843 B2 20001123; CA 2268924 A1 19980108; CA 2268924 C 20061017; CA 2486645 A1 19980108; CA 2486645 C 20060530; DE 69734001 D1 20050922; DE 69734001 T2 20060413; EP 0914183 A1 19990512; EP 0914183 A4 20001102; EP 0914183 B1 20050817; ES 2247634 T3 20060301; NZ 333049 A 20001124; NZ 505248 A 20011221

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