

Title (en)  
HAND-HELD, BATTERY POWERED CLEANING TOOL

Title (de)  
HANDGEFÜHRTES BATTERIEGETRIEBENES REINIGUNGSWERKZEUG

Title (fr)  
INSTRUMENT DE NETTOYAGE A PILE ET MANUEL

Publication  
**EP 1549175 A1 20050706 (EN)**

Application  
**EP 03774714 A 20031008**

Priority  
• US 0332011 W 20031008  
• US 26640202 A 20021008

Abstract (en)  
[origin: US2004064907A1] A hand held cleaning tool is powered by commonly available batteries. Preferably a momentary switch selectively delivers power from the batteries to a motor. An output shaft of the tool includes an expandable coupling, such as, for example a set of swaging cams. Torque delivery arms radiate outward from the output shaft. For example, the torque delivery arms are carried by a hub. The hub is attached to the output shaft with a pin. The hub also acts to secure a power train including the motor and output shaft to a housing of the cleaning tool. The torque delivery arms are received in slots or interdental spaces associated with a cleaning head. Torque is delivered to the cleaning head with a reduced stress concentration.

IPC 1-7  
**A46B 13/02**; **B08B 1/04**; **A47L 13/38**; **A46B 7/04**

IPC 8 full level  
**A46B 7/04** (2006.01); **A46B 13/02** (2006.01); **A47K 11/10** (2006.01); **A47L 17/04** (2006.01); **B08B 1/04** (2006.01)

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