

## Title (en)

DEVICE FOR RELEASABLY SECURING ESPECIALLY A GRINDING DISC TO A PORTABLE POWER TOOL

## Publication

**EP 0147545 A3 19860910 (DE)**

## Application

**EP 84112112 A 19841010**

## Priority

DE 3346148 A 19831221

## Abstract (en)

[origin: EP0147545A2] The device for releasably securing a disc-shaped tool, especially a grinding disc (6) or the like, to the working spindle of a portable power tool, in particular an angle grinder, essentially consists of the base part (1) and the closing part (8). The latter has the shape of an annular disc with an axially projecting collar (7). This collar (7) engages in the bore (5) of the grinding disc (6) or the like. The closing part (8) can be slipped onto the journal-shaped extension (3) of the base part (1), a web (12) engaging in a radial locating groove (11), open at the margin in the axial direction, of the journal-shaped extension (3). Adjoining the locating groove (11) in the peripheral direction is at least one supporting surface (17, 18) along which the web (12) is moved in the direction (21) of rotation. This connection is self-locking. The angle of rotation can be in the order of magnitude of about 120 DEG C. The pitch direction of the supporting surface (17, 18) is selected in such a way that the rotary connection is loaded in the closing direction during the normal working direction of rotation of the working spindle. During a short reverse motion of the working spindle or during rotation at the closing part (8) in the opening direction of rotation, the self-locking is overcome. The latter can be increased further by an elastic ring (23). The base part (1) is a component of the working spindle or is firmly connected to the working spindle. <IMAGE>

## IPC 1-7

**B24B 45/00**

## IPC 8 full level

**B24B 23/02** (2006.01); **B24B 27/00** (2006.01); **B24B 45/00** (2006.01)

## CPC (source: EP)

**B24B 45/006** (2013.01)

## Citation (search report)

- [X] US 2426170 A 19470826 - AKERS RAYMOND F
- [A] DE 2156770 A1 19730530 - HEFNER HERMANN
- [A] LU 55244 A1 19680327
- [A] US 3912411 A 19751014 - MOFFAT ROBERT H
- [A] PATENTS ABSTRACTS OF JAPAN, Band 5, Nr. 87 (M-72)[759], 6. Juni 1981; & JP - A - 56 33 206 (MIYAGAWA KOGYO K.k.) 03-04-1981

## Cited by

KR200480909Y1; EP2428314A3; CN102029565A; FR2620365A1; DE10064163A1; DE10064163C2; EP0521259A1; EP0495181A1; EP1454595A1; FR2613268A1; DE102011051938A1; EP2548697A3; CN113118881A; DK178917B1; US6966824B2; EP2548697A2; US7367874B2; WO2004078054A1; WO2012126543A1; WO02051588A1; US11346401B2; WO2017207007A1

## Designated contracting state (EPC)

CH FR GB IT LI NL SE

## DOCDB simple family (publication)

**EP 0147545 A2 19850710; EP 0147545 A3 19860910; DE 3346148 A1 19850704; JP S60150963 A 19850808**

## DOCDB simple family (application)

**EP 84112112 A 19841010; DE 3346148 A 19831221; JP 26652784 A 19841219**