

Title (en)  
TOOTHED FASTENER.

Title (de)  
GEZAHNTE MUTTER.

Title (fr)  
ECROU CANNELE.

Publication  
**EP 0595952 A4 19941207 (EN)**

Application  
**EP 92916085 A 19920729**

Priority  

- AU 9200393 W 19920729
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Abstract (en)  
[origin: WO9303283A1] A toothed fastener (10) having a threaded portion (12), and a head portion (14) provided integral to the threaded portion (12), the head portion (14) having a toothed outer periphery (16) and a pressure transmitting surface (18). The fastener also has a friction reducing means (20) comprising a first part (22) having a first pressure transmitting surface (24) and a second part (32) having second and third pressure transmitting surfaces. The second part (32) is located between the head portion (14) of the fastener (10) and the first part (22). A solid dry lubricant material (30) in the form of an annulus is located between the first and second parts (22, 32) to reduce friction therebetween, whereby the first part (22) can be held stationary relative to the object to be fastened so that the dry lubricant material (30) acts as a bearing between the head portion (14) of the fastener and the fastened object when the fastener (10) is tightened or loosened by engaging the toothed outer periphery (16). A fastening tool (46) having a toothed portion (52) for tightening and loosening the toothed fastener, together with a modified automotive wheel (40) incorporating toothed wheel fasteners (42) is also disclosed. The toothed wheel fastener (10, 42) facilitates more efficient fastening and removal of a wheel as well as improved security against theft.

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IPC 8 full level  
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Citation (search report)  

- [X] WO 8805386 A1 19880728 - BOSCH GMBH ROBERT [DE]
- See references of WO 9303283A1

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