

Title (en)
Combination lock

Title (de)
Kombinationsschloss

Title (fr)
Serrure à combinaisons

Publication
EP 0757144 A1 19970205 (EN)

Application
EP 95305501 A 19950804

Priority
EP 95305501 A 19950804

Abstract (en)
A combination lock includes a dial shaft (22) adapted to be rotated with a user's hand, a fore lock plate (38a), at least one intermediate lock plate (38b,c) and a rear lock plate (38d) arranged in parallel with each other, and a driving plate (33) integrally fitted to the rear end of the dial shaft (22). A plurality of unlocking cutouts (35,41a,b,c,d) are formed on the outer peripheries of the driving plate (33) and all the lock plates (38a-d) so as to allow a lock pawl (A) to be received in the unlocking cutouts when the latter are located in alignment with each other. A driving gear (36) having a large diameter is formed in the driving plate (33), and a follower gear (43) having a small diameter is formed on the fore lock plate (38a). Both the gears mesh with each other at a gear ratio via an idle gear (44) so as to allow both the gears (36,43) to be rotated in the opposite direction. The gear ratio is determined such that all the lock plates (38a-d) are followably rotated as a dial knob is turned with a user's hand. Usually, the number of lock plates is four, and the gear ratio of the driving gear (36) to the follower gear (43) is set 3 : 1. <IMAGE>

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IPC 8 full level
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CPC (source: EP)
E05B 37/08 (2013.01)

Citation (search report)

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- [A] US 1366868 A 19210125 - BRAUN ANDREW J, et al
- [A] DE 667249 C 19381107 - HERMANN BODE
- [A] FR 1226470 A 19600713
- [A] PATENT ABSTRACTS OF JAPAN vol. 14, no. 583 (M - 1064) 26 December 1990 (1990-12-26)

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