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(21) International Application Number: PCT/AU98/00229 (22) International Filing Date: 6 April 1998 (06.04.98) (30) Priority Data: PO 6042 8 April 1997 (08.04.97) AU (71) Applicant (for all designated States except US): LOCKWOOD AUSTRALIA PTY. LTD. [AU/AU]; Edward Street, Huntingdale, VIC 3166 (AU). (72) Inventor; and (75) Inventor/Applicant (for US only): NEWMAN, Donald, John [AU/AU]; 13 Sullivan Drive, Somerville, VIC 3912 (AU). (74) Agent: PHILLIPS ORMONDE & FITZPATRICK; 367 Collins Street, Melbourne, VIC 3000 (AU).		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i>
(54) Title: LOCK MECHANISM (57) Abstract The invention is concerned with a lock mechanism of the kind having a deadbolt (9) which is operable by either an inside actuator or an outside actuator. The inside actuator usually includes a turn knob or the like, and the outside actuator usually includes a key operated lock. The lock mechanism includes a gear train (8) through which each of the two actuators is drivably connected to the deadbolt (9). The gear train includes two drive gears (13, 14) which are independently rotatable about a common axis of rotation, and each is connected to a respective one of the two actuators so as to rotate in response to operation of that actuator. The gear train (8) also includes two driven gears (17, 18) which are united to form a single piece composite gear (16), and each driven gear (17, 18) is cooperable with a respective one of the two drive gears (13, 14). The composite gear (16) is connected to the deadbolt (9) so that the deadbolt (9) moves between operative and inoperative positions in response to rotation of the composite gear (16). Each actuator adopts a rest position when the deadbolt (9) is in the inoperative position, and neither drive gear (13, 14) cooperatively engages with the composite gear (16) when the respective actuator is in the rest position. Furthermore, the gear arrangement is such that the outside actuator turns through 360° to cause the deadbolt (9) to move from one of its positions to the other, whereas 180° rotation of the inside actuator is sufficient to effect the same degree of deadbolt movement.		