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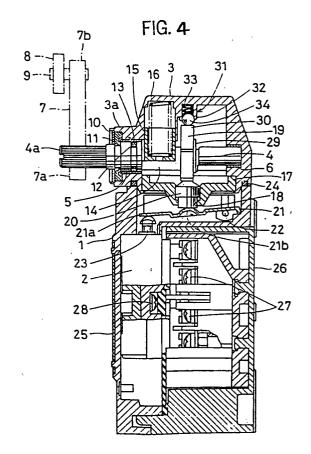
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- Applicant: OMRON CORPORATION 10, Tsuchido-cho, Hanazono, Ukyo-ku, Kyoto-shi, Kyoto-fu(JP)
- Inventor: Sakamoto, Kunio, c/o Omron Corporation Intellectual Property Center, 20, Igadera Shimokaiinji, Nagaokakyo-shi, Kyoto 617(JP)
- Representative: WILHELMS, KILIAN & PARTNER Patentanwälte
  Eduard-Schmid-Strasse 2
  W-8000 München 90(DE)

## 4 Limit switch.

57) A limit switch comprising a case (1) housing a switching unit (2), a head (3) secured to one end of the case, a rotary shaft (4) rotatably supported by the head and having a flat portion (14), a manipulation lever (7) secured at a butt end thereof to the rotary shaft which supports at a tip (7B) end thereof roller (8) means for detecting an object, a return coil spring (16) provided in the head which applies a force through a return plunger (15) to the flat portion of the rotary shaft to return the manipulation lever to a free position, a disk cam (19) secured to the rotary shaft and having a projection (30) formed on a peripheral portion thereof in a position corresponding to the free position of the manipulation lever, manipulation plunger means for the switching unit which is driven in response to rotary movement of disk cam and elastic stopper means (31) disposed in the head for contacting the projection of disk cam and for braking the manipulation lever when manipulation lever is returned to the free position, whereby the lever is prevented from being swung back beyond the free position. Therefore, the switching unit is prevented from chattering.





## EUROPEAN SEARCH REPORT

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	OCUMENTS CONSI	th indication, where appropriate,	Releva	nt CLASSIFICATION OF THE
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K,Y,A	US-A-3 829 637 (KILCOIN * the whole document *	, J. A.)	1,2,8,3	H 01 H 21/28
Y,A	DE-A-1 920 273 (HANS BERNSTEIN SPEZIALFABRIK FÜR SCHALTKONTAKTE) * last paragraph; figures 1-4 *		K 8,1-7	
Α	US-A-3 959 614 (GRANIN * claims 1-7; figures 1, 3-4 *	·	1	
Α	US-A-3 749 860 (CREPEAU, R. G.) * column 3, line 27 - column 4, line 5; figures 1, 2 *		1	
Α	GB-A-2 095 915 (OMRON * the whole document *	TATEISI ELECTRONICS (	20.) 1	
				TECHNICAL FIELDS SEARCHED (Int. CI.5)
	The present search report has t	peen drawn up for all claims		
	Place of search	Date of completion of se	arch	Examiner
	Berlin	10 December 91		NIELSEN K G
Y: A:	CATEGORY OF CITED DOCU particularly relevant if taken alone particularly relevant if combined wit document of the same catagory technological background non-written disclosure	JMENTS h another	E: earlier patent of the filing date D: document cited L: document cited	ocument, but published on, or after