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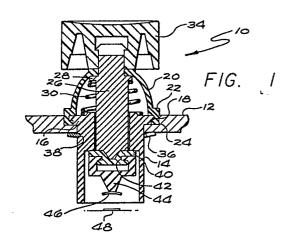
® Date of deferred publication of the search report: 12.10.88 Bulletin 88/41 Applicant: INDUSTRIAL ELECTRONIC ENGINEERS INC.
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(54) Key for a keyboard.

(57) A plunger (26) is slidable in a jacket (14), preferably electrically insulating. A flange (16) is disposed on the jacket at one surface of the bezel (12). The flange receives a lip portion at one end of a boot (20) preferably made from a pliant material such as a silicone rubber. The boot and a thumbpiece (34) abut a flange on the plunger. A spring (30) may be constrained between the jacket and the flange on the plunger to bias the plunger and the boot to an unconstrained relationship of the boot. A retainer (36) such as a ring is disposed in a groove (38) in the plunger adjacent the opposite surface of the bezel from the jacket flange. The retainer cooperates with the bezel to press the jacket flange and the boot lip tightly against the bezel. This causes a seal to be produced to prevent water and humidity from passing through the bezel. An electrical contact (46) is attached to the plunger at the opposite end of the plunger from the thumbpiece. The electrical contact may be shock mounted to the plunger as by a rubber mount. The electrical contact cooperates with a contact (48) fixedly mounted in the bezel to define a switch. The plunger and the thumbpiece may be translucent. A lamp may be illuminated when the switch is closed, thereby illuminating the plunger and the thumbpiece. Under such circumstances, the contact on the plunger may bridge a pair of spaced contacts in the bezel to establish electrical continuity to the lamp. The lamp may also be illuminated independently of any operation of the key.





EUROPEAN SEARCH REPORT

EP 87 11 5578

	DOCUMENTS CONS	IDERED TO BE RE	ELEVANT		
Category	Citation of document with indication, where appropriate, of relevant passages		ate,	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
Y	US-A-3 881 077 (T. PIBER)			н 01 н 13/06
•	* Column 2, line lines 30-35; f		mn 3,	1-4,6,	н 01 н 13/02
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Y	DE-U-1 669 636 (
	* Page 2, lines figure *	21-24; claims	; 3,4;	1-4,6,	
A				5	
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A	US-A-3 790 734 (A. RAAB et al	. .)		
	* Column 5, line lines 18-21; f		mn 10,	1-5	
	-	· -			
A	us-A-3 581 036 (DENNISON)			
	* Column 1, line column 2, line			1-5	TECHNICAL FIELDS SEARCHED (Int. Cl.4)
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A	FR-A-1 497 268 (_		H 01 H 13/00
	* Column 3, line lines 37-42; f		ımn 4,	1-6	G 05 G 1/00
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Berlin		29-03-19	29-03-1988		DIOU
CATEGORY OF CITED DOCUMENTS X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document			theory or pr	rinciple under	lying the invention
X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons					
A: technological background O: non-written disclosure P: intermediate document &: member of the same patent family, corresponding document					nt family, corresponding



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CLAIMS INCURRING FEES						
The presen	nt European patent application comprised at the time of filing more than ten claims.					
	All claims fees have been paid within the prescribed time limit. The present European search report has been					
	drawn up for all claims. Only part of the claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid,					
	namely claims: No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.					
	ACK OF UNITY OF INVENTION					
	ch Division considers that the present European patent application does not comply with the requirement of unity of and relates to several inventions or groups of inventions,					
1. C	Claims 1-6,9: Seal for prevent water and humidity passing through the bezel on which is disposed a keyboard key					
2. C	Claims 7,8,10-12: Electrical contacts, possibly for a lamp in the switch					
3. C	Claim 13: Mechanical assembling to combine the action of many keys					
	All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.					
	Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid.					
	namely claims:					
XX	None of the further search fees has been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims,					
	namely claims: 1-6,9					



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