Publication number:

0 187 656

(12)

EUROPEAN PATENT APPLICATION

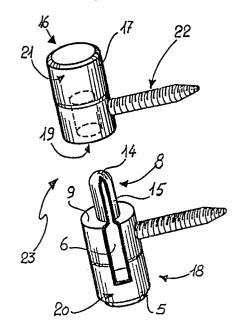
Application number: 86100126.1

(f) Int. Cl.4: **B 21 K 13/02**, E 05 D 5/10

Date of filing: 07.01.86

30 Priority: 09.01.85 IT 8250385

- Applicant: OTLAV S.p.A., Via A. Volta 26, I-31025 Sarano Frazione di Santa Lucia di Piave (Treviso) (IT)
- Date of publication of application: 16.07.86 Bulletin 86/29
- Inventor: Manzalini, Norberto, Via Vecchia Trevigiana 143, I-31015 Conegliano (Province of Treviso)
- Ø Designated Contracting States: CH DE FR IT LI
- Representative: Modiano, Guido et al, MODIANO, JOSIF, PISANTY & STAUB Modiano & Associati Via Meravigli, 16, I-20123 Milan (IT)
- Date of deferred publication of search report: 01.10.86 Bulletin 86/40
- Method of making male elements for hinge devices and hinge devices obtained thereby.
- (5) The present invention has for its subject a hinge and a method of forming a closed cavity hollow male hinge. The method comprises a first processing step consisting of shearing a section from a cylindrical drawn blank followed by cold impact reverse-extrusion by means of a punch and die action; that step causes the material to be upturned laterally to form a constant pattern hollow body having an open end. Thereafter, there is carried out on said hollow body, as by striking with a die, a reduction of one portion thereof at the open end, thus defining a hollow pin. The open end of the latter is then upset and stopped to make the hollow body watertight.







EUROPEAN SEARCH REPORT

EP 86 10 0126

DOCUMENTS CONSIDERED TO BE RELEVANT					
Category	Citation of document with indication, where appropriate, of relevant passages		Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)	
A,D	DE-A-2 808 411 * Figures 2-10; lines - page 9, p	page 7, two last	1-4,7, 10	B 21 K E 05 D	
A	FR-A-2 368 316 (KRAMATORSKY INDUSTRIALNY INSTITUT) * Figures 1-3; page 6 *		1,5	•	
A	DE-A-3 307 529 * Figures 2-5; ; 4 *	- (W. PFAFFLI) page 7, paragraph	1,6,9		·
A	GB-A- 911 029 CORP.)	GENERAL MOTORS			
				TECHNICAL SEARCHED	
	·			B 21 K E 05 D	
-	·				
	The present search report has t	een drawn up for all claims			
<u> </u>	Place of search THE HAGUE	Date of completion of the search 10-07-1986		Examiner BLING C.D	.A.
Y: pa do A: ted O: no	CATEGORY OF CITED DOCU inticularly relevant if taken alone inticularly relevant if combined w ocument of the same category chnological background on-written disclosure termediate document	JMENTS T: theory of E: earlier proafter the ith another D: document L: document	atent document, filing date nt cited in the ap nt cited for other of the same pate	lying the invention but published on plication reasons and family, corresponding the corresponding to the corresponding	, or