

(12) **EUROPEAN PATENT APPLICATION**

(21) Application number: 85308921.7

(51) Int. Cl.⁴: B 21 C 1/26

(22) Date of filing: 09.12.85

(30) Priority: 12.01.85 GB 1500785

(43) Date of publication of application:
23.07.86 Bulletin 86 50

(88) Date of deferred publication of search report: 08.04.87

(84) Designated Contracting States:
AT BE CH DE FR GB IT LI LU NL SE

(71) Applicant: **STEVENS & BULLIVANT LIMITED**
Western Road Spring Hill
Birmingham B18 7QE(GB)

(72) Inventor: **Thompson, Alfred James**
47 Vernon Avenue
Birmingham B20 1DD(GB)

(74) Representative: **Hands, Horace Geoffrey et al,**
LEWIS W. GOOLD & CO. Whitehall Chambers 23, Colmore
Row
Birmingham B3 2BL(GB)

(54) **Manufacture of tubular components.**

(57) A method and apparatus for push-pointing a tube (12) so as to produce a smaller diameter end portion includes means (16) for sizing and finishing the reduced diameter portion utilizing a heated mandrel located in the tube and withdrawn

through the reduced diameter portion whilst the latter is engaged in the push-pointing die (16). Figure 5 shows the push-pointing step completed, and the mandrel engaged with the die ready to begin the internal sizing operation.

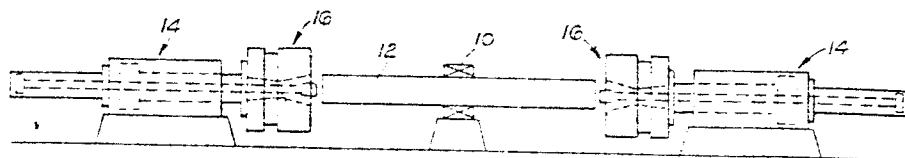


Fig. 1



European Patent
Office

EUROPEAN SEARCH REPORT

0188086

Application number

EP 85 30 8921

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)
X	GB-A-2 068 857 (MANNESMANN) * figures 1-3, claims 1, 2 *	1,2,4, 5,7	B 21 C 1/26
A	EP-A-0 106 751 (Y. PENCE) * claim 1 *	1	
A	FR-A-2 473 916 (COMPAGNIE INDUSTRIELLE ET COMMERCIALE DE TUBES) * claim 1 *	1	
			TECHNICAL FIELDS SEARCHED (Int. Cl.4)
			B 21 C 1/00 B 21 C 37/00 B 21 D 53/00 B 21 K 1/00
The present search report has been drawn up for all claims			
Place of search BERLIN		Date of completion of the search 27-11-1986	Examiner SCHLAITZ J
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 T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			