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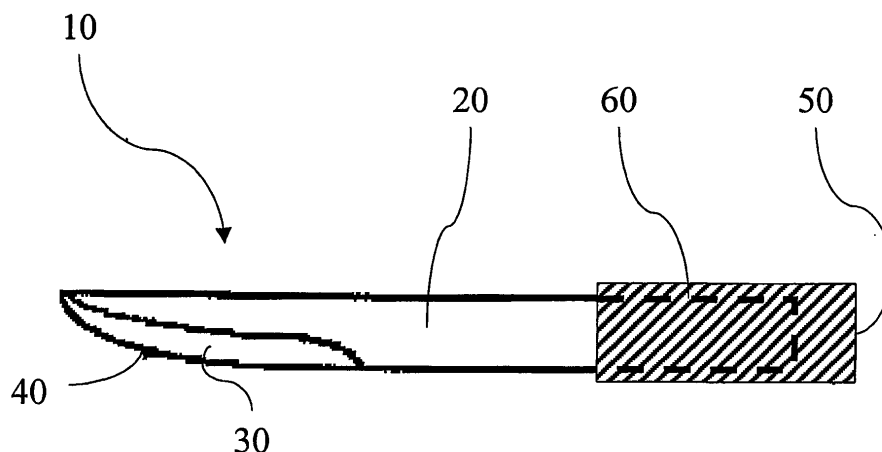
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(54) **Sharp-edged cutting tools**

(57) The inventions regards a cutting tool comprising a blade portion having a sharpened edge and a body portion, wherein at least one of the blade portion (30) and the body portion (20) are formed from a bulk amorphous alloy material. In an embodiment, the at least one portion

formed from the bulk amorphous alloy has a thickness of at least 0.5 mm. In another embodiment, the at least one portion formed from the bulk amorphous alloy is designed such that it does not undergo plastic deformation at strain levels of at least about 1.2%.

*Figure 1*





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# EUROPEAN SEARCH REPORT

Application Number  
EP 08 00 6342

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	C. SURYANARAYANA: "Non-equilibrium Processing of Materials" 1999, ELSEVIER SCIENCE LTD. , KIDLINGTON, OXFORD , XP002483416 * tables 14.1,14.5 * * page 383 - page 384 * -----	1,2,16, 22-24	INV. B26D1/00 B29B9/00 C22C45/00 C22C45/02 C22C45/10
			TECHNICAL FIELDS SEARCHED (IPC)
			B29B B26D C22C
<div style="text-align: center;"> <p><del>The present search report has been drawn up for all claims</del></p> </div>			
Place of search		Date of completion of the search	Examiner
Munich		9 June 2008	Zimmermann, Frank
<div style="display: flex; justify-content: space-between;"> <div> <p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone</p> <p>Y : particularly relevant if combined with another document of the same category</p> <p>A : technological background</p> <p>O : non-written disclosure</p> <p>P : intermediate document</p> </div> <div> <p>T : theory or principle underlying the invention</p> <p>E : earlier patent document, but published on, or after the filing date</p> <p>D : document cited in the application</p> <p>L : document cited for other reasons</p> <p>.....</p> <p>&amp; : member of the same patent family, corresponding document</p> </div> </div>			

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EPO FORM 1503 03/02 (P04C01)



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### CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

### LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ 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:

☒ None 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 invention first mentioned in the claims, namely claims:

see annex

☐ The present supplementary 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 (Rule 164 (1) EPC).



The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1,2,16,22-24

A cutting tool having a sharpened blade portion and a body portion wherein at least one of these portions consists of an undefined bulk amorphous alloy and method of its manufacture

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2. claims: 3,11,12

A cutting tool having a sharpened blade portion and a body portion wherein at least one of these portions consists of a bulk amorphous alloy defined by its ability to withstand plastic deformation when strained.

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3. claims: 4-7

A cutting tool having a sharpened blade portion and a body portion wherein at least one of these portions consists of a bulk amorphous alloy defined by some of its physical properties.

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4. claims: 8-10

A cutting tool having a sharpened blade portion and a body portion wherein at least one of these portions consists of a ferrous bulk amorphous alloy.

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5. claim: 13

A cutting tool having a sharpened blade portion and a body portion wherein at least one of these portions consists of a bulk amorphous alloy comprising an undefined amount of a ductile metallic crystalline phase precipitate.

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6. claims: 14,15

A cutting tool having a sharpened blade portion and a body portion wherein at least one of these portions consists of an undefined bulk amorphous alloy and wherein the cutting tool further comprises an handle.

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7. claim: 17



The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

A cutting tool having a sharpened blade portion and a body portion wherein at least one of these portions consists of an undefined bulk amorphous alloy and wherein the sharpened edge has a specific radius of curvature.

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8. claims: 18,19

A cutting tool having a sharpened blade portion and a body portion wherein at least one of these portions consists of a bulk amorphous alloy and wherein the blade portion is coated.

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9. claim: 20

A cutting tool having a sharpened blade portion and a body portion wherein at least one of these portions consists of a bulk amorphous alloy and whereby the cutting tool is a knife or a scalpel.

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10. claim: 21

A cutting tool having a sharpened blade portion and a body portion wherein at least one of these portions consists of a bulk amorphous alloy and wherein the sharpened edge is serrated.

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