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F16B 19/04

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(43)

10-2004-0086433
2004 10 08

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10-2004-7013155
2004 08 24
2004 08 24

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PCT/US2003/004532
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(honeycomb)

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2	1	2	
3	1	2	
4	7		
8	11		

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가 ,

1 7 (honeycomb rivet)(100) 1 가 8 11
 (300) 2 가 1 100 200 2 300 400

1 7 , 1 (100) 1 (100)
 (100) (back side sleeve)(102), (front side sleeve)(104), (stem) (1
 06), (internal locking collar)(108) (driving anvil)(110)

1 , (100) (102) (112) (114)
 (112) (102) 1 (116) , (114) (102) (112)
 (102) 2 (118) (102) 1 (116) (112)
 (D1) (112) (102) 1 (116) (114)
 (114) (D1) (D2)

(114) , (102) 2 (118) (102) 1 (116)
 (114) (120) (114) (120)
 (D2) (D3)

2 , (100) (104) (122) (124)
 (122) (104) 1 (126) , (124) (104) (122)
) (104) 2 (128) (104) 1 (126) (104) (122)
 2) (D4) (D4) (D1) (122) (104) 1
 (126) (124) 1 (132) 1 (130) (124) 1
 (132) (D5) (D5) (D2) (D4) (124) 1
 (132) 2 (134) (124) 2 (138) 1 (136) (1)
 24) 2 (138) (D6) (D6) (D3) (104)

(104) (124) 2 (138) 2 (142) (104) 2 (1
 28) (104) 1 (126) (140) (140) 1 (144)
), 2 (146) 3 (148) (140) 1 (144) (104) 1 (126)
 , (D7) (140) 1 (144) (104) (122)
 (104) 1 (126) , (140) 1 (144) (150) (140) 2 (146)
 (140) 2 (146) (D8) (D8) (D7) (14)
 0) 2 (146) (104) (122) (124) 1 (132) 2 (1
 134) (140) 3 (148) (124) 2 (138)
 (D8) (D9) (D9) (D8) , (140) 2 (146) 3 (148)
 (140) (152)가

3 , (106) (106) 1 (156) (154)
 (154) (158) (154) (102) (120)
 (D3) (D10) (154) (D11) (158) 1
 (160) , (D11) (D10) (104) 3 (148) (1
 40) (D9)

(158) 2 (162) (158) 1 (160) 2 (162) (D11)
 (D12) 가 , (164) (158) 1 (160) 2 (162) (D1
 2) (104) 2 (146) (140) (D8)

(158) 3 (166) (158) 2 (162) 3 (166) (D12)
 (D13) 가 , (168) (158) 2 (162) 3 (166)

(158) 3 (166) (158) 2 (162) (168)
 (170) . (158) 3 (166) (106) 2 (174) (15
 8) 2 (162) (168) (172, pulling portion) 3 (166)
 (176) , 3 (166) (178)
 (170) (172) (170) (179) 3 (166)
 가
 4 , (108) (170) 가
 (180) (108) 가 (182) (158) 3 (166)
 (106) 2 (174) (108)
 (108)가 (158) 3 (166) (158) 2 (162)
 (D12) (108) A-286 (precipit
 ation hardening) Inco Alloys International, Inc. INCONEL
 가
 4 , (110) (158) 3 (166) (D13)
 (100) 1 (186) 2 (188) 1
 (186) (184) . (184) , (192) (194) 1
 (190) , (198) (200) 2 (196) , 1 (190)
 (192) 2 (196) (200) (202)
 1 (186) (204) (206) (184) 2 (196)
 , 2 (196) (198) 1 (186) (206)
 1 (190) 2 (188) (208) (210) (184)
 8) (184) , 1 (190) (194) 2 (188) (20
 (184)
 (100) 1 (186) 2 (188) (184)
 4 7
 1 (186), (184) 2 (188) (212)
 (102) (114) (D2) (104) (124) 2 (138)
 (D6) , 1 2 (186, 188) (212) (214, 216)가
 (216) (104) (122) , (214)
 (102) (112) (212)
 (184) 1 2 (186, 188) (212) (214, 216)가
 (100) (212) (214, 216)
 1 (186) (212) (184) 2 (196) (184)
 (202) (102) (114) , (102)가 (212)
 (102) (112) (214) 1 (186)
 (204) (102) (114) (D2) (212)
 , (102) (212)
 (104) (140) 3 (148) (106) (158) 3 (166)
 , (108)가 (106) (104)
 (154) (D10) (140) 3 (148) (D9) (154)
 (104) (140) (104) 2 (128) , (D11)
 (158) 1 (160) (D9) (140) 3 (148) (D12)
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 . (158) 3 (166) (108) (140) 2 (146)
 (D13) (158) 3 (166) (140) 2 (146) (140) 1 (144)
 144) (104) (122)

(212) (184) 1 (212) (190) (184) 2 (188) (202) (106) (154) (104) (124) (122)가 (21) (104) (106) (122)가 2 (188) (210) (106) (114) (154) (104) (124) 2 (138) 가 (102) (212) (104) (124)가 1 (132) 2 (138) (104) (114) (120) (104) (124) 2 (138) (102) (106) (114) (120) (218) (102) (114) (106) (154) (104) (102) (218) , (110) (158) 3 (166) , (104) 1 (126) . (100) (212) , (178)가 (158) 3 (166) (110) 가 (104) (122)가 (212) (216) (110) (178) . 5 (178) (110) (F1) 가 (102) (104) , (F2) (106) (158) (17) 2) 가 (F2) (154) (104) 2 (128) (102) 2 (118) (104) (124) 2 (138) 가 (upset) , (104, 102) (124, 114) 가 (102) (114) 가 , (184) (100) (104, 102)가 , (178)가 (F2) (106) (158) (172) (108) (182)가 (110) , (108) (108) (140) (104) (104)가 (100) (182) (144) (108) (106)가 (100) 가 (178) (F2) 가 , (106) (158)가 (179) , 7 (burr) . 8 11 , (300) 2 (309) 2 (300) (302), (304), (306), (309) (311) . (300) (302), (304) (306) (100) (102), 가 , (104) (106) (184) (186, 188) , (309) (379) (372) (306) 3 (366) (309) (309) (306) 3 (366) (D13) (304) (340) 1 (344) (D7) (309) A-286 Inco Alloys International, Inc.가 INCONEL 가 , 8 , (311) (420) (422) , (4) 20) (422) (424) . ,

(420) , (424) (422)
가 .

(300) 1 2 (386, 388) (384) 8
11 .

1 (386), (384) 2 (388) (412)
(302) (314) (D2) (304) (324) 2 (33
8) (D6) . (414, 416) 1 2 (386, 388) (412)
(302) (416) (304) (322) , (414)
(302) (312) (412)

(414) (414, 416)가 (384) (386, 388) , (300)
(412) (414, 416)

(302) (314) 1 (386) (384) 2 (396) (412)
(384) (402) (302)가 (412) ,
(302) (312) (414) (312) 1 (386) (30
4) (302) (302) (314) (D2) (412) ,
(302)가 (412)

(306) (358) 3 (366) (304) (340) 3 (348)
(348) (306) (304) (354) (D10) (340) 3
(304) 2 (328) (D11) (358) 1 (360)
(D9) (340) 3 (348) (D12) (358) 2 (362) (
D8) (340) 2 (346) (340) 3 (348) (D13) (35
8) 3 (366) (340) 2 (346) (340) 1 (344) , (304
) (322)

(306) (354) (304) (324) 2 (388) (38
4) 1 (390) (412) (384) (402) ,
(302)가 (412) (304) (306) 가
(412) , (304) (322) (416) 2
(388) (410) , (306) (354) (304)
(324) 2 (338) (302) (314) (320)
(304) (304) (304)
(324)가 1 (332) 2 (338) , 2 (338) (302)
(314) (320) . (302) (314) (306)
(354) (418) . (304, 302) (
418)

(308)가 (358) 3 (366) , (308) (304)
(340) 1 (340)

(310)가 (358) 3 (366) (422) (426)
(304) 1 (326) , (420) (428) (308)

(300) (412) , (378)가 (358) 3 (366)
, 8 (378) (311) 가 (304) (420)
(430) (311) 가 (322) (4
12) (416) (311)
(378)

9 , (378)
(311) (F1) 가 (306) (302, 304)
(358) (372) (F2)

가 . (F2) (354) (304) 2 (328)
 (304) (324) 2 (338) 가 , (302) 2 (318)
 (302) (314) 가 . (304, 302) (324, 314)
 가 (304, 302)가 (384) (300)

10 , (378)가 (F1) (311) (420) 가
 , (F1) (424) (422) (420) (420)
 (F1) 가 , (420) (378) (420)
 가 (304) (340) 1 (309) 가 (306) , (309)가
 . (304) (340) 1 (344) (306) (370)
 (309) (306) (304)가 (300) (308) 가
 (308) (306)가 , , (300)

(378) (F2) 가 , (306) (358)가 (379)
 , 11 .
 , (311)가 , 가 .
 , (100, 300)
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(57)

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2 2 가 2
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가 , 2 , 가 가 , 1

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가 , 2 가 2 2 2 1 2 1

14. 15. 16. 17. 18. 19. 20.

14 , 2 가 .

16. 1 2 , 1 2 ,

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, 1 가 가 , 가 가 1 ,

2 가 가 , 가 1 1 2 가 ,

16. 17. 18. 19. 20.

16 , 2 가 2 가 .

17. 18. 19. 20.

17 , 1 2 가 , 1 2 1 2 가

가 , 2 .

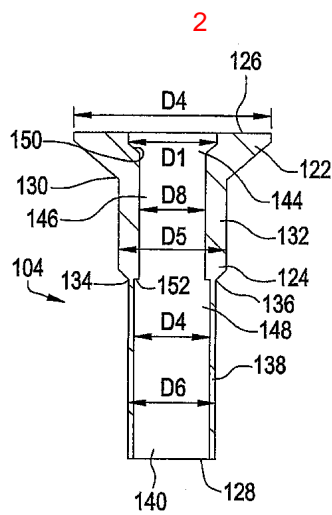
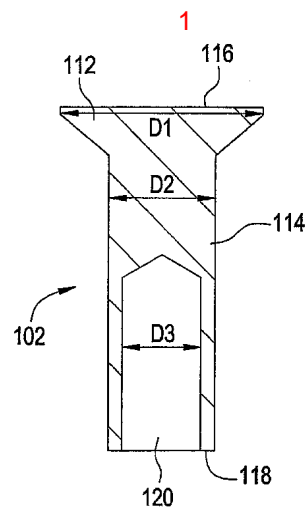
18. 19. 20.

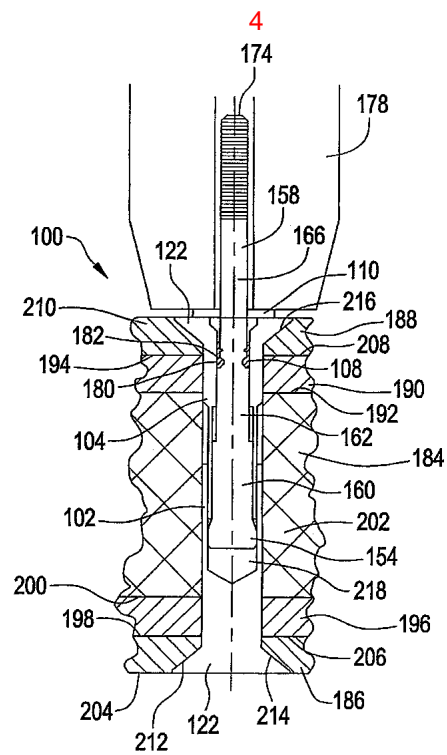
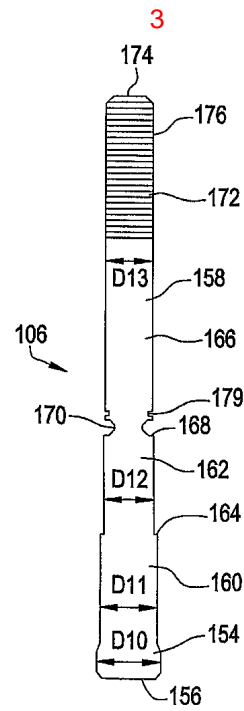
18 , 2 .

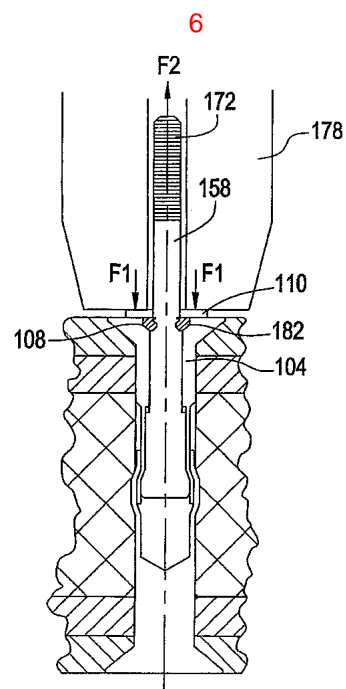
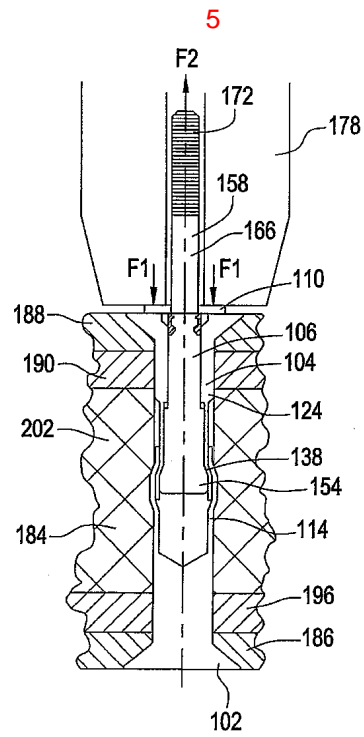
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, 1 1 , 2 가 , 2 1 2 ,

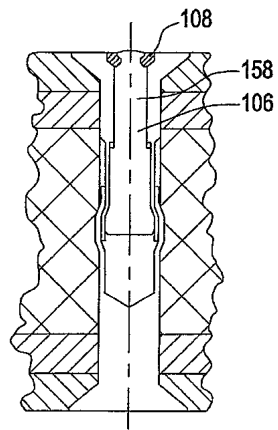
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- b) 2 , 2 2
- c) 1 1
- d) 2 , 가 2 , 2
- e) 2 2 가 1 , 1
- f) , 1 2 가 2 1 2
- 가 1 , 1 2 가 1 2
- g) 2 .



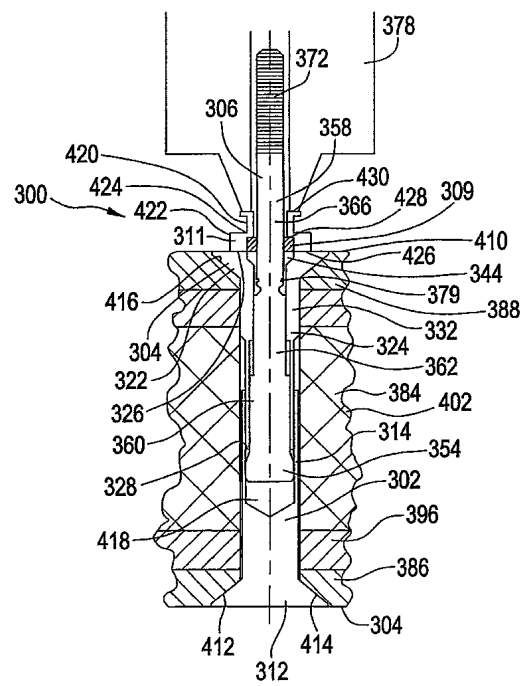




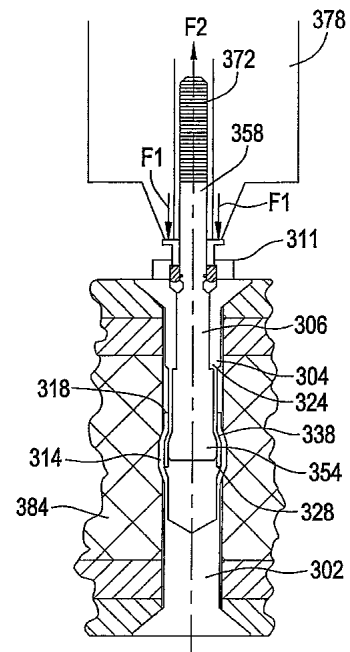
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