

(19)
(12)

(KR)
(A)

(51) . Int. Cl.7
B23K 26/14
F01D 5/00

(11)
(43)

10-2004-0081773
2004 09 22

(21)	10-2004-7012301		
(22)	2004 08 09		
	2004 08 09		
(86)	PCT/US2003/003376	(87)	WO 2003/066272
(86)	2003 02 05	(87)	2003 08 14

(30)	10/071,025	2002 02 08	(US)
-------------	------------	------------	------

(71)		101	
-------------	--	-----	--

(72)	, 07828, ,	51	
-------------	------------	----	--

	, 30096, ,	1127	
--	------------	------	--

	, 28681, ,	319	
--	------------	-----	--

	, 30680, ,	274	
--	------------	-----	--

	, 29651, ,	235	
--	------------	-----	--

	, 30022, ,	325	
--	------------	-----	--

(74)

:

(54)

(100)		(104),	(102)
--------------	--	--------	-------

(170)

가
(144)
(220)가

가

(148)

1

(laser fusion welding),

(powder-fed)

(alloy powder stream) /

(powder flow stream)

(melt pool)

가

가

가

가

가

(Honeywell International, Inc)

(JetFix)
(aluminide)

가

) (brazing alloy) 가

(LPF: Laser Powder Fusion)

12

(HAZ: Heat Affected Zone) 가

1000

500,000

가 LPF

, LPF 가

LPF

가

가

가

가

(semi-liquid)

가

가

가

Nd:YAG

1 2
1 2

가

·
가

가

1

2 가

가

1

3 8 3 - 3

1

4

5

6 1

7 6 7-7

1

8 1

(LPF)

LPF

가

가

가

가

74

1

(e.g., 600-1000) Nd:YAG . YAG(Nd:YAG) ,
(Nd) - - 가 (YAG: Yttrium Aluminum Garnet)
/ .

Nd:YAG

- 1) Nd:YAG 1.06μm 가

2)
1mm

3) Nd:YAG

가

가 가
(HAZ)
1mm

(off-axis)

()

가

가

1/4

3

(0.25 - 3

가

가

가

$$2) \quad \begin{matrix} 1 & & & & (100) & & (102) & & (10) \\ (102) & (102) & (108) & (108) & (106) & (106) & (104) & (104) & \text{가} \end{matrix} \\ \cdot \quad \begin{matrix} (102) & (108) & (104) \end{matrix} \quad .$$

(170) , (100)가

가 . (170) (l/m) , (120)

(170)	(176)	가	(186)
(146)			
(170)	(male-to-female)	(192)가	(190)
(192)		(barb-to-pipe)	(194)
(196)가	(190)		,
,	(198)	가	(200)
,	(170)가	(140)	
(170)		(140)	
(170)		(100)	(glove box),
(170)		,	가
,	(120)	(100)	(140)
(210)	(198)	(170)	(198)
(214)	(212)	,	1
(144, 176)	(220)	(212)	(198)
(220)	(222)가	(224)	
(220)		(214)	(210)
(100)		(224)	
(100)		가	
2	(130)가	(224)	
(250)		(214)	
(130)	(170)	(224)	(130)
(130)	(250)		
1	(250)	(252)	
(250)	(252)	,	1
(130)	(130)	(252)	(252)
(170)	(176)	60mm	(130)
		90mm	
			(254)
1	(252)	(254)	
,	(252)	(254)	
1	(254)가	(256)	
(254)		(250)	(130)
(254)		(250)	(258)
(130)			
,	2		
(140)			
			(100)
가	,		
(250)	(130)	(100)	(270)
,	(160)	(152)	(250)
(270)		(160)	(250)
(170)		(152)	(176)
		(100)	
		(104)	
			가

가

가, , (anti reflection coating) (250)
 , (254) (threaded adjustment) 가
 (254) (carriage)

, (130) (light receiving end) (262)
 , (270)

가

(100) , (250)

, - 가 (194) (140) (frustro-coincular) (170) (184)
 가 (186) (170) (186)

, (GTAW
) TIG() 가

가 , (dope)

, (250)
 (270) / (250)

가 가

가 , (160)

5 , (220) (282) , (210) , (222)
 (280) (224) , (280) , (280)

, 가 , (222) (222) , (100)
 (100) , (222) (222) , (100) , (100)
 , () (222) , (100) , (100) , (100)

, 5 , (284) (220), (28)
 (288) (286) (286) , (28)
 284), (286) (288) , (28)
 6) (100) 가 (282) , (28)
 (100) (280) , (28)

가 (candidate)

가

2 (2D) 3 (3D)

(wand)/
x - y

가 ()

가

(safety feature)

,

(100)

가 (degrees of spatial freedom)

가

가 (100), (282), (223), (232), ()
가 (100)

가

가

가 . , , , , , , (dowel)

가

(57)

1.

(100)

(104);

140) (104) , (144) ()

, (144) (144) (270) 1 2 1 2 (152) (15)

2.

1 , 1 2 (152) 1 2 (152)

3.

1 , 1 2 (152)

4.

1 , 1 2 1 2 (160) (152) (290) 1 1 2 2 (160) (152)

5.

1 , (140) ,

(144) (146)

1 2 (152) (146) 1 2 (152) (150)

6.

1 , (140) (170)

(170) (144) (176)

(170) (190) 가 ,

(170) 가 (176) (140) (shroud)

(170) (270) 가 (140)

7.

1 , (140) 가

8.

1 , (100) (286);

(140) (220)

(220) (144) (100) , (280)

9.

8

(220)
(100)

가

가

(10)

10.

8

(100)

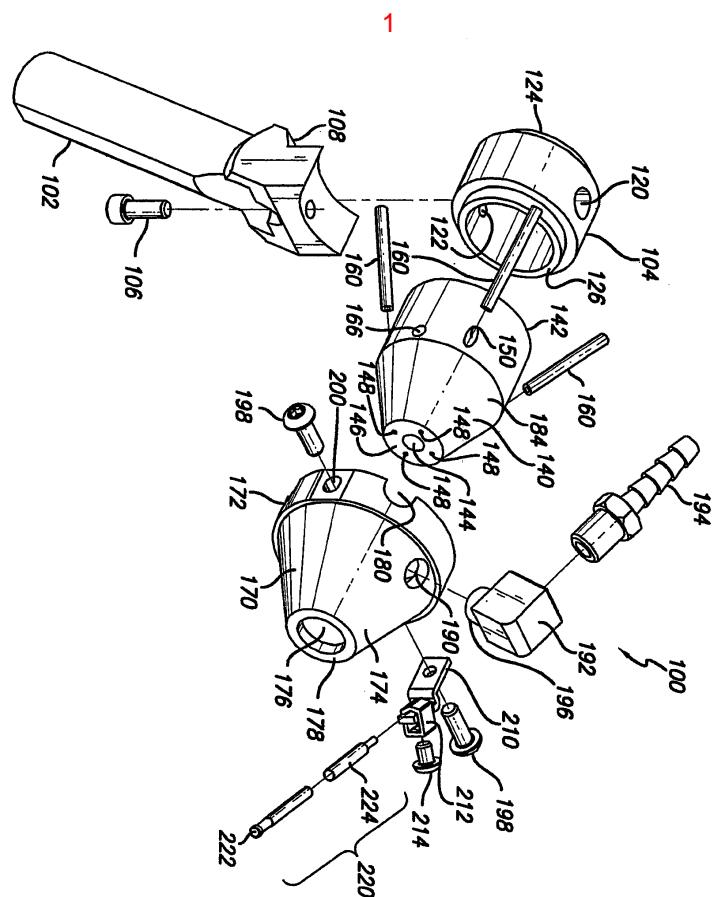
가

(286)

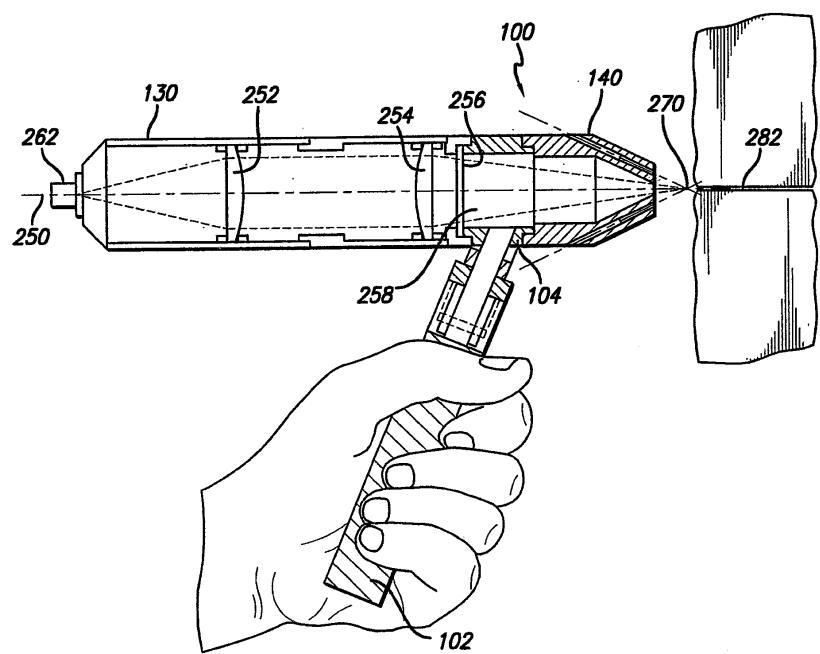
(222)

(220)
(222)

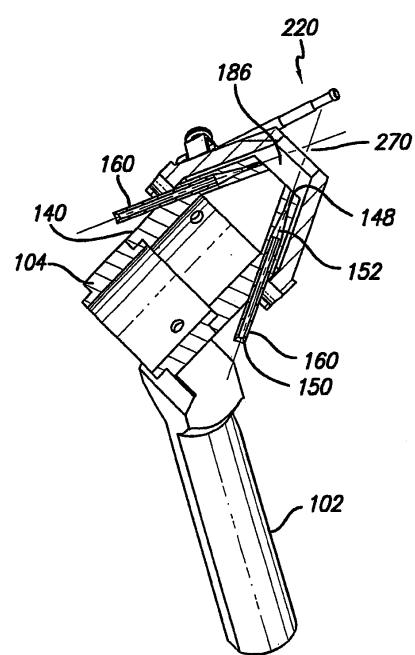
(100)

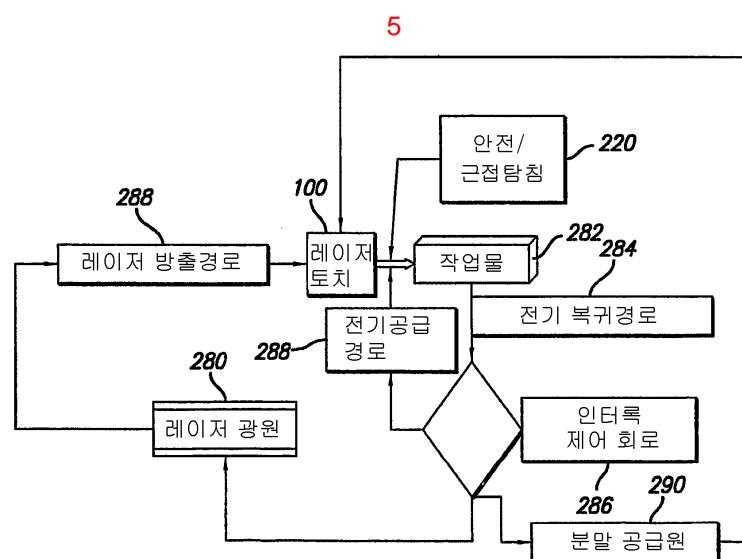
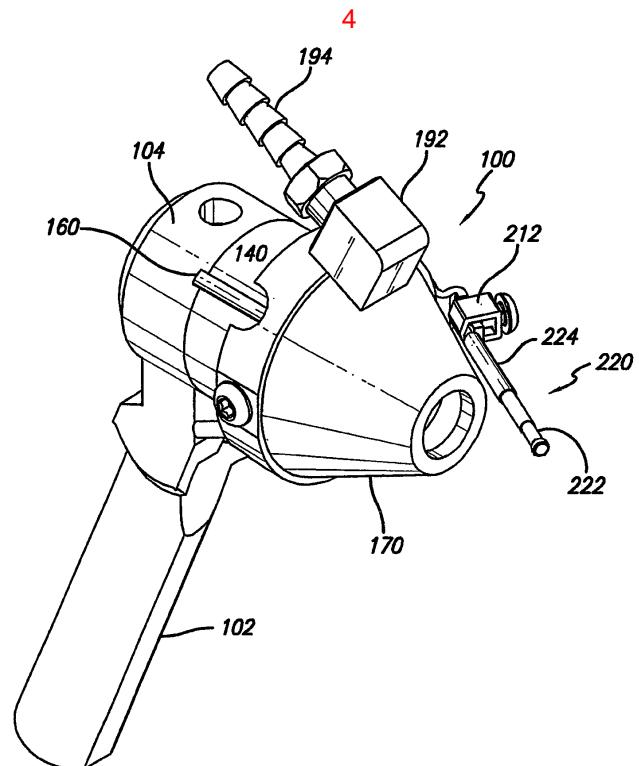


2

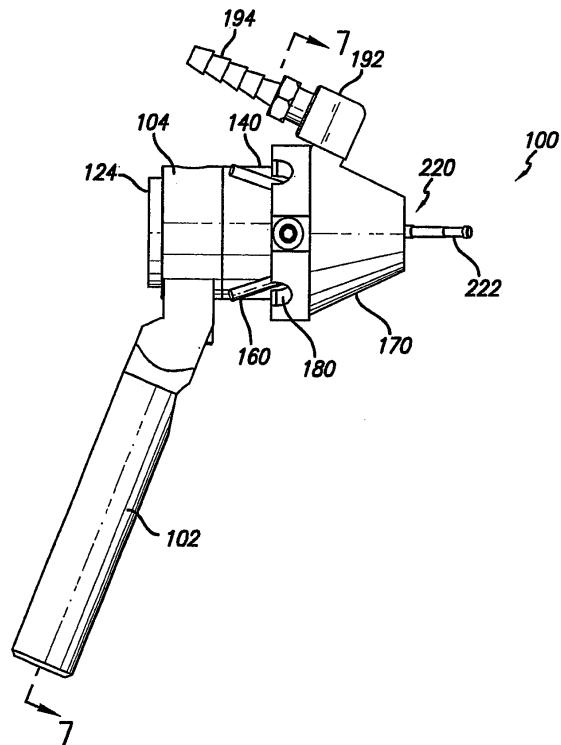


3





6



7

