

(19) (KR)
(12) (A)

(51) 。 Int. Cl.7
G01N 21/27
G01N 21/84

(11)
(43)

10-2004-0088523
2004 10 16

(21) 10-2004-7013173
(22) 2004 08 24
2004 08 24

(86) PCT/US2003/014022
(86) 2003 05 02

(87)
(87)

WO 2003/096028
2003 11 20

(30) 60/380,049 2002 05 06 (US)

(71) , 27703 1040

(72) . 27712 216

(74)

:

(54) /

6c

2002 5 6 가 60/380,049 ,

가 (candling) 가 가

가 (non-live eggs) 가 (in ovo) 가 (

가 가 4,458,630 5,028,421

(,), 4,681,063

(Sheek) 5,158,038 4,458,630 4,681,063

가 60 % 90 % 5 % 25 %

가 (Coady) 3,616,262

가 (1) 가 1b 11 (live)' 1a 1 (1) 1a (2) (3)

(5), (6), (7)가 (1b) (4) 1b

가 (clear)' 1 5 (infertile)' 가 (late

(early dead)' 5 15 가 (late

(mid-dead)' 15 18 가 (late

(rotted)' (early dead)', (mid-dead)', (late-dead)' (non-live)

가

11 (11) 2

/

(0.75), 가

가

/

가

가

'a', 'an' 'the'

(on)'

가

가

가

(connected)'

가

(directly on)'

(attached)'

(directly connected)'

(directly attached)'

(upwardly)', '

(downwardly)', '

(vertical)', '

(h

가

horizontal)'

()

(, 7)

2

(100).

(300).

/ (200),

3

(120).

(130).

/

(140).

(132).

(134).

4 (200) (, , ,)
 (210)
 (220)

, , , , , /

(, , ,) (230).
 (240).

(,)

(300, 2). 5
 (310).

가 (320).

6a-6c (400)가 (40
 0) (6a) (6b) (402)
 (402) (404), (405), (406) (407) (402)
 (402) (configuration)

(402) (408, 409)
 (410, 411) (412)가 (408)
 (412) (408, 409) (410, 411)
 09) (413) (412) (414) (408) (4
 (418) (412) (416) (402)
 (6a) (408) (418) (412)
 (402) (6b-6c) (412) (1) (top)
 (418) (408) (408, 409)
 (410, 411) (412) (translational)

(420) (414) (420) (4
 02) (6b-6c) (1) (1) (420) (420) 가
 / (1) (1) (420) 가

(422) (422) (422)
 b) (412) (422a) (LED)) (424)가 (422)
 (422a) LED 가 (422a) 가

(420) (420) (412) (420)
 (420) (402)

(430) (414) (402)
 (1) (412)

(430) 가 , (430) (stray light) (430) (1) (430) .

(432)가 (430) (1) (integral amplifier) (420) 60 Hz 가 (420) 880 nm (420) .

(430) (432) (420) (colorant) (430) 가 (432) (650, 8) (412) (432) (650) (432) (1) .

(432) (432) (beam) (432) 18 가 (432) (432) (432) .

(430) (420) 가 (412) (configuration) (430) (420) (412) .

7a-7c (500) (502) (500)가 (512) (506) (503) (504) (502) (501) (503) (actuator (7a) (502) (506) (502) (506) (pneumatic actuator), 가 (20) (1) (502) (503) (1) (530) (530) .

(502) (530) (502) (510) (20) (512) (512) (520) (510) (502)가 (520) (7b) (1) (520) 가 / (1) .

b) (522a) (512) (520) (522a) (522) (524)가 (522) (522a)

(530) (512) (502)가 (532)가 (530) (1) 6a-6c (530) (520) (532) (colorant) 가 (6a-6c) (520) (532) (650) (8) (512) (532) (650) (532) (1) (512) (configuration) (520) 가 (530) (522) 가 (510) (512) (600) 가 (610), (620), (630) (20) (640) (600) (1) (610) 가 (20) (610) (620) (630) (640) (20) (1) (20) (610) 6a-6c (20) (1) (1) (620) (620) 7 (가 6 7 'CHICKMASTER 54' , 'JAMESWAY 42' 'JAMESWAY 84' (650) (620) 6a-6c (620) (1) 7a-7b (650) (660)가 (610), (630) (640) (650) (630) (20) (630) (630) 4,681,063 5,017,003 (630) 6,213,709 ; 6,224,316 6,145,668 ; 6,149,375 ; (610) (630) (20) (20)

(640) (, , ,)
, N.C.) . , INOVOJECT ™ 가 (Embrex, Inc., Research Triangle Park

가 , 가 가 가 가

1a 1

1b 11

2-5

6a

6b 6a

6c 6a-6b

7a

7b 가 7a

7c 7a-7b

8

(57)

1.

;

;

;

;

,

;

2.

1 ,

- 1 3. , 가
- 4. ;
- ; ' ;
- ; 가 ;
- 4 5. , ,
- 4 6. , .
- 4 7. , 가 /
- 4 8. , , ;
- 가 ;
- 9. , , , , , ; /
- 8 10. , 가
- 10 11. , 가
- 10 12. , .
- 10 13. , .
- 14.

8 , 가 가
가 , 가 .

4 15.
4 , .

4 16.
4 , .

4 17.
4 , .

18. ;
1 ;
2 ;
;

18 19.
18 , , .

18 20.
18 , .

18 21. 가 / .

18 22.
18 , .

18 23.
18 , .

18 24.
18 , , .

25. 가 ;

;

가

1

;

가

2

;

;

26.

25

27.

25

28.

25

가 /

29.

25

30.

25

31.

25

32.

;

가

;

,

,

1

;

2

;

;

,

,

32 33. ,

32 34. , 가 ,

32 35. , ,

32 36. , ,

32 37. , ,

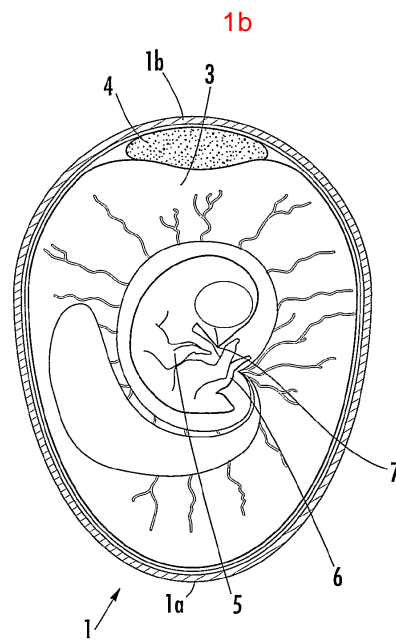
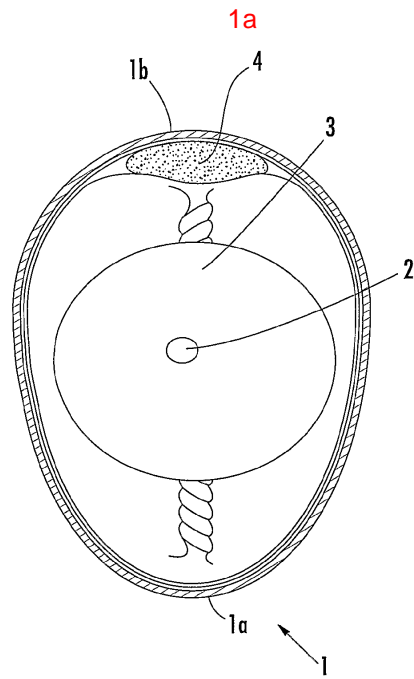
32 38. , .

32 39. , 가 /

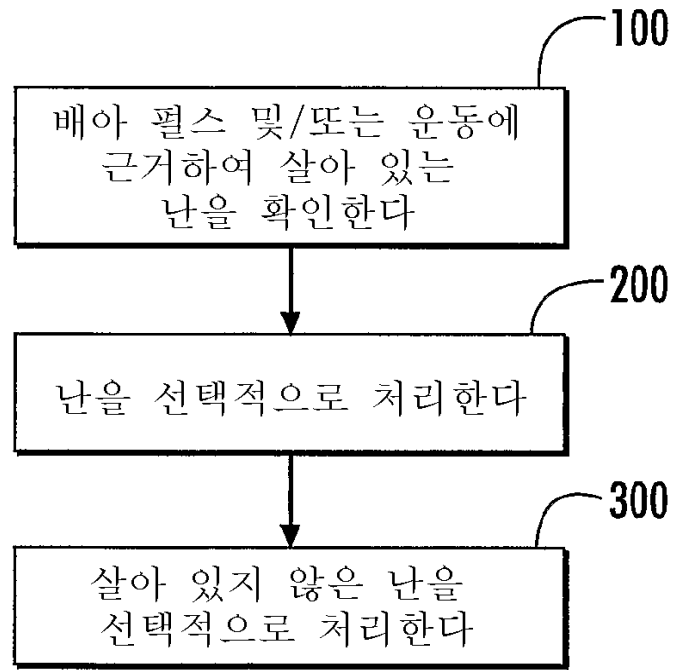
32 40. ,

32 41. , .

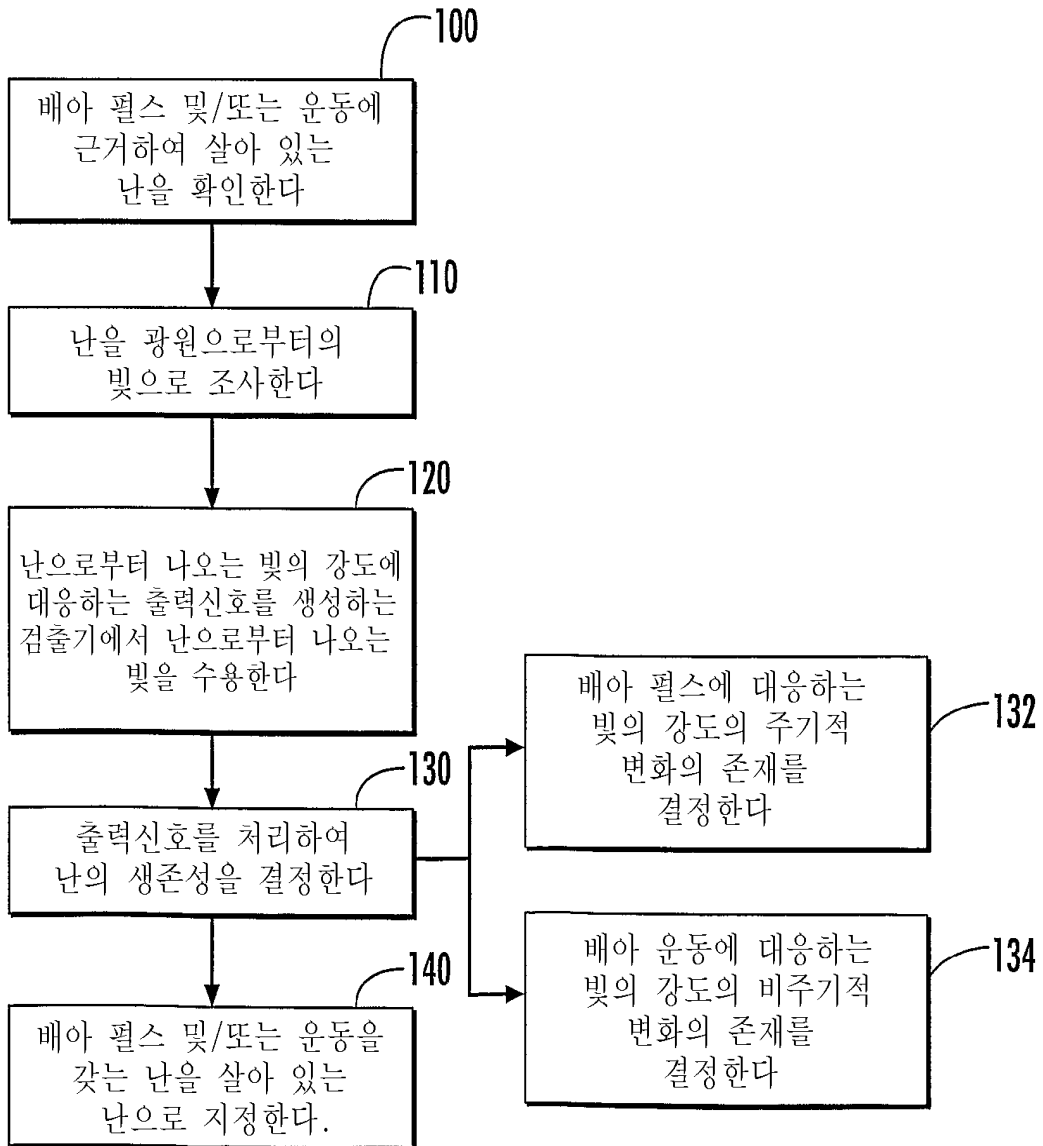
32 42. , ,



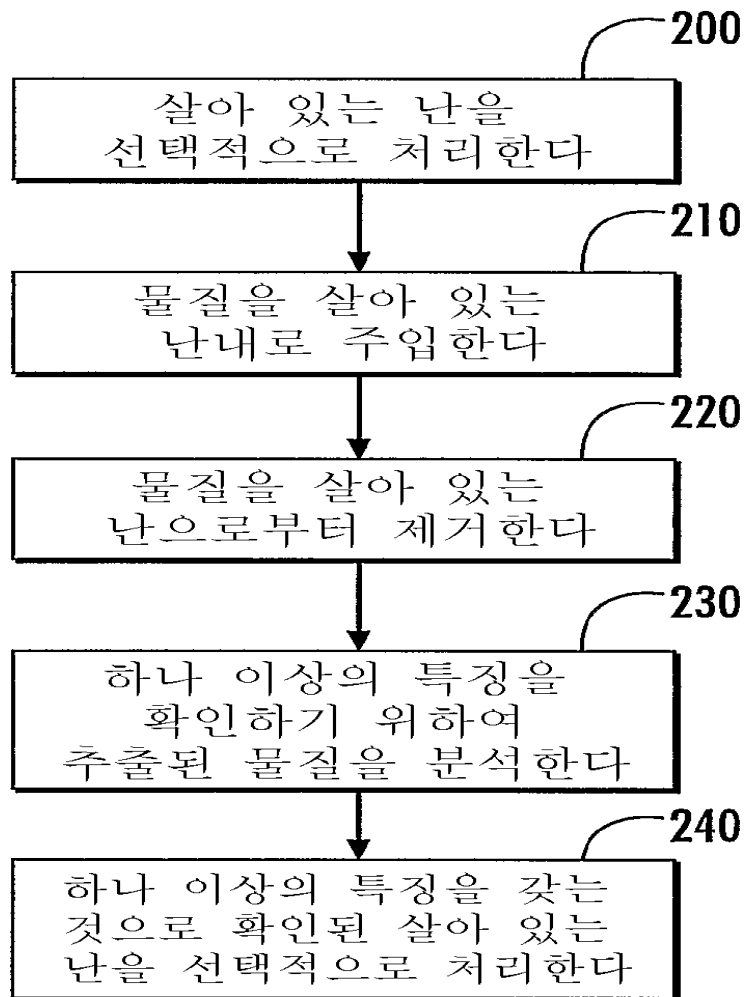
2



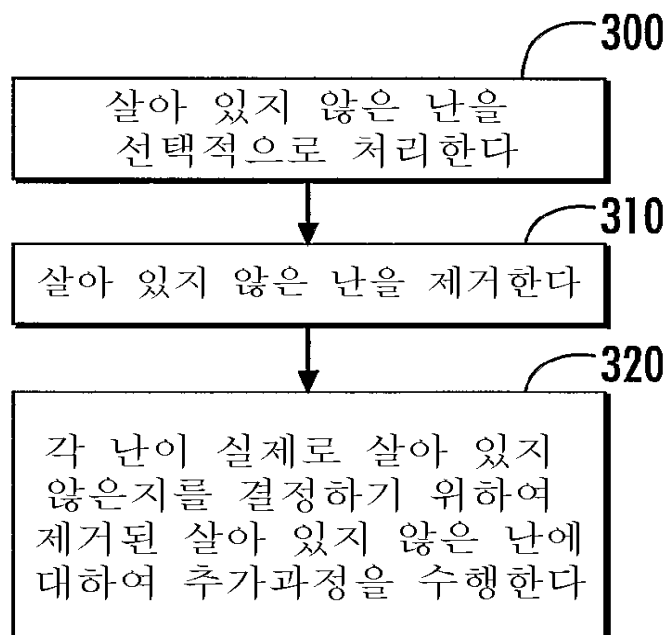
3



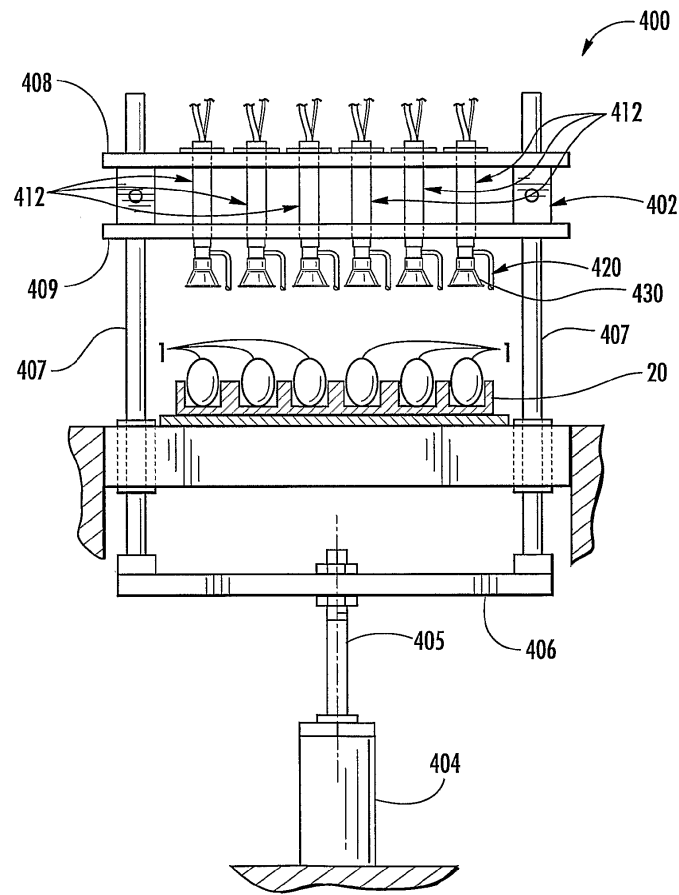
4



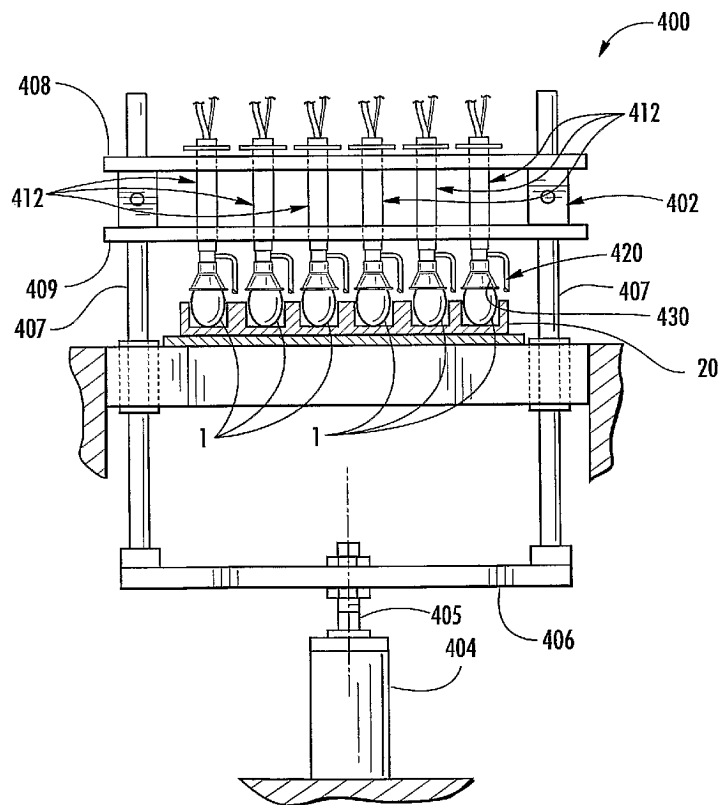
5



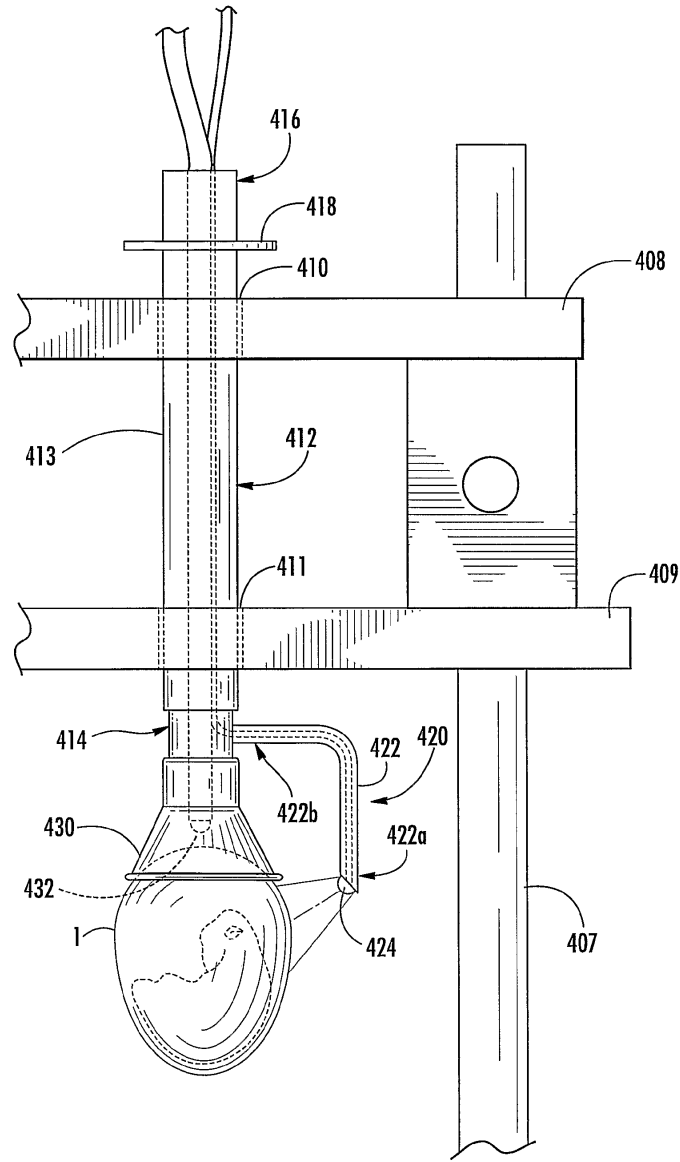
6a



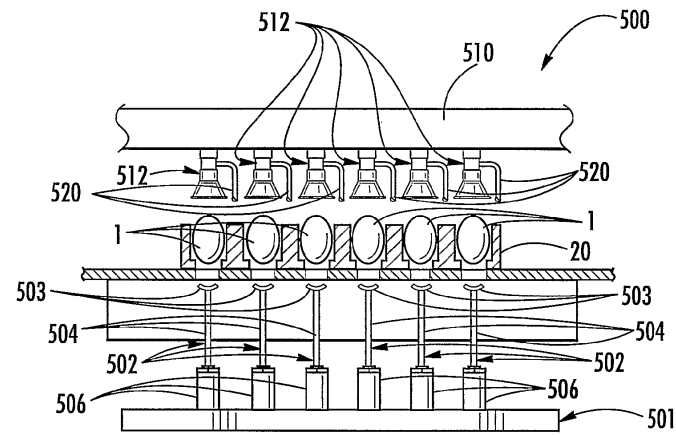
6b



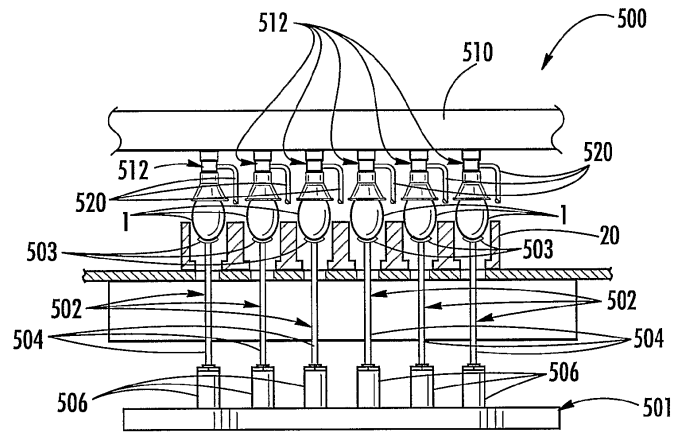
6c



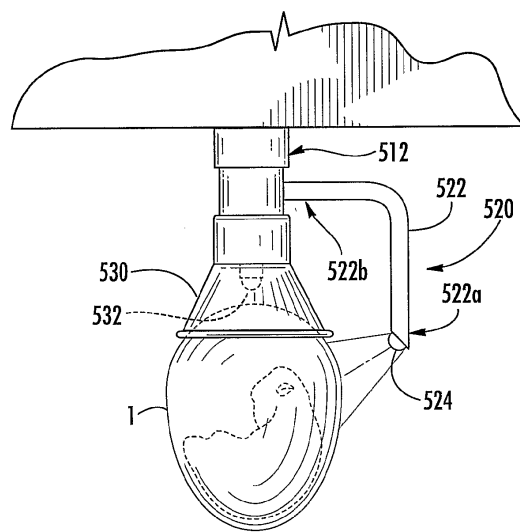
7a



7b



7c



8

