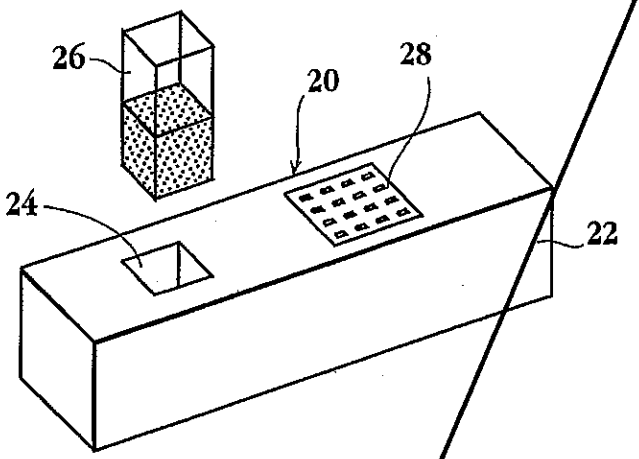

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Fig. 1

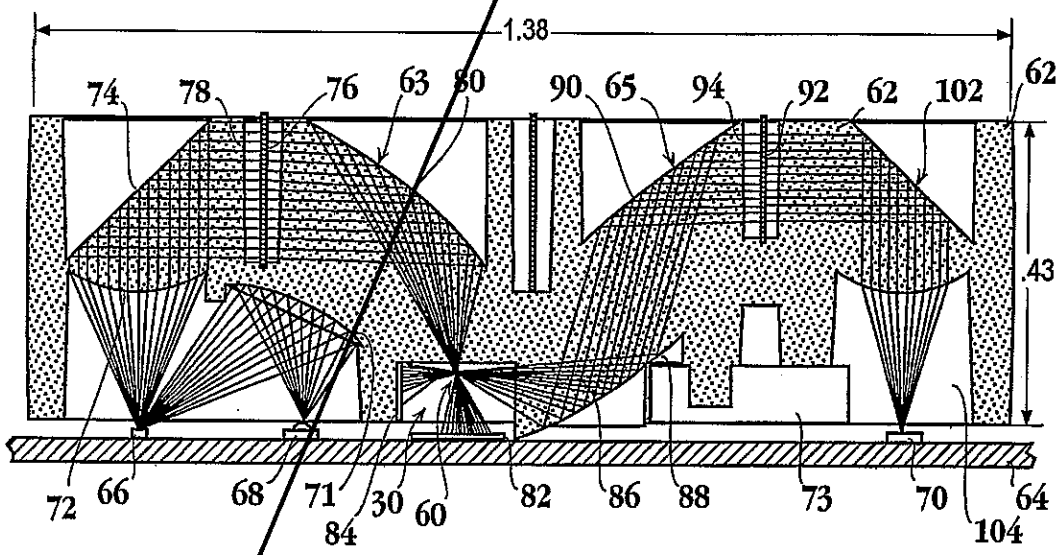

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Fig. 2

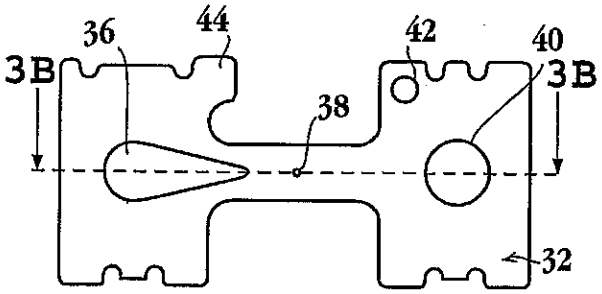


Fig. 3A

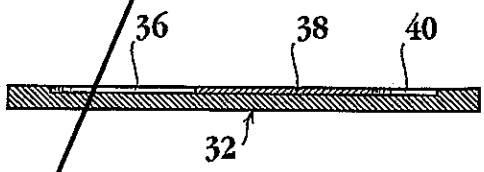


Fig. 3B

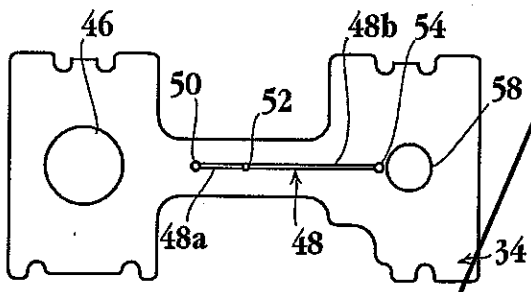


Fig. 3C

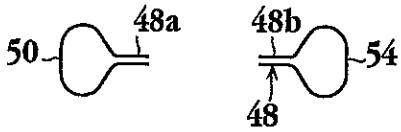


Fig. 3D

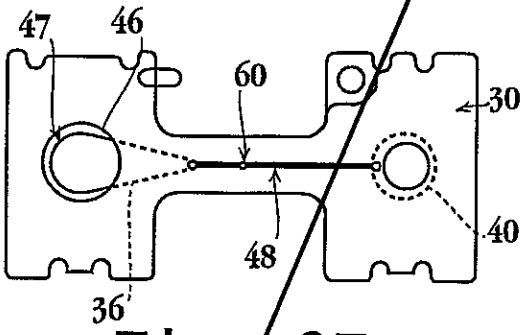


Fig. 3F

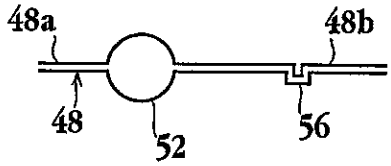


Fig. 3E

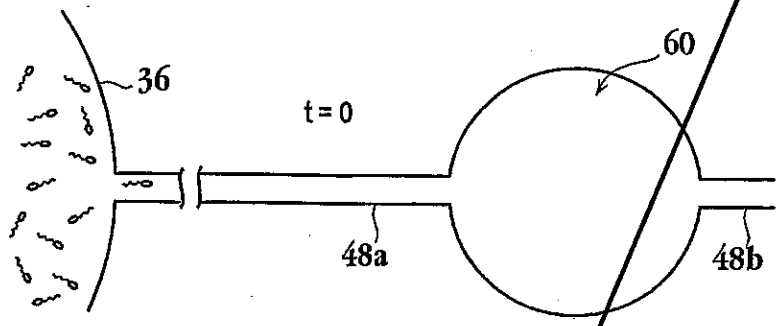


Fig. 4A

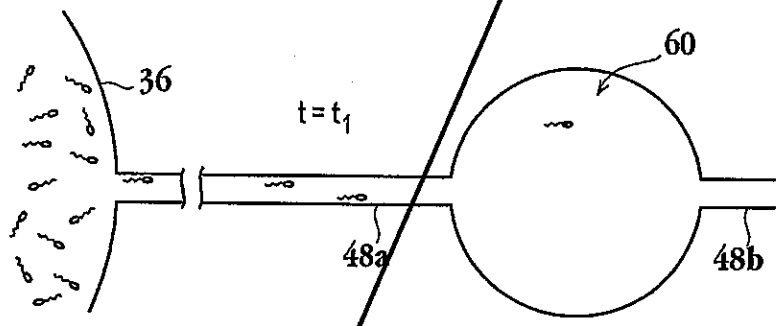


Fig. 4B

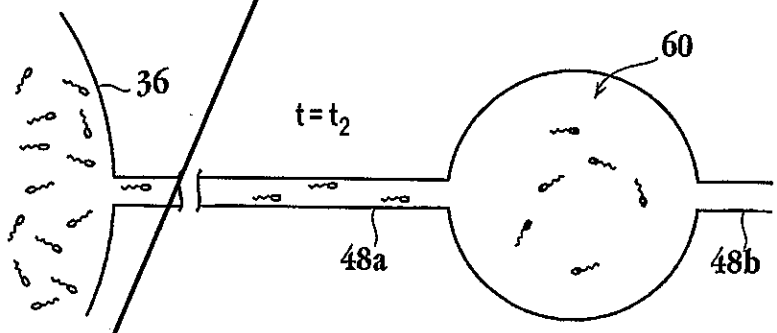


Fig. 4C

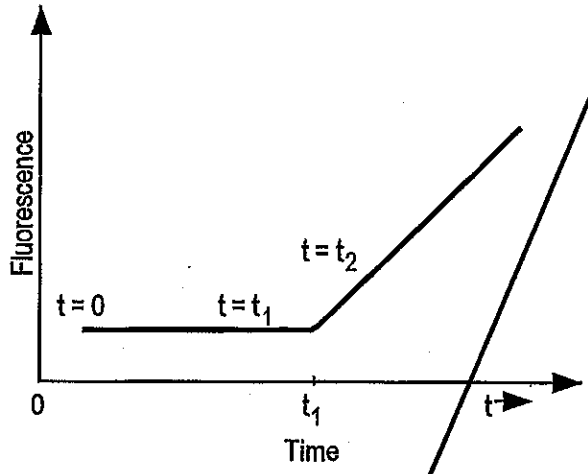

Fluorescence
t = 0
t = t1
t = t2
0
t1
t
Time

Fig. 5

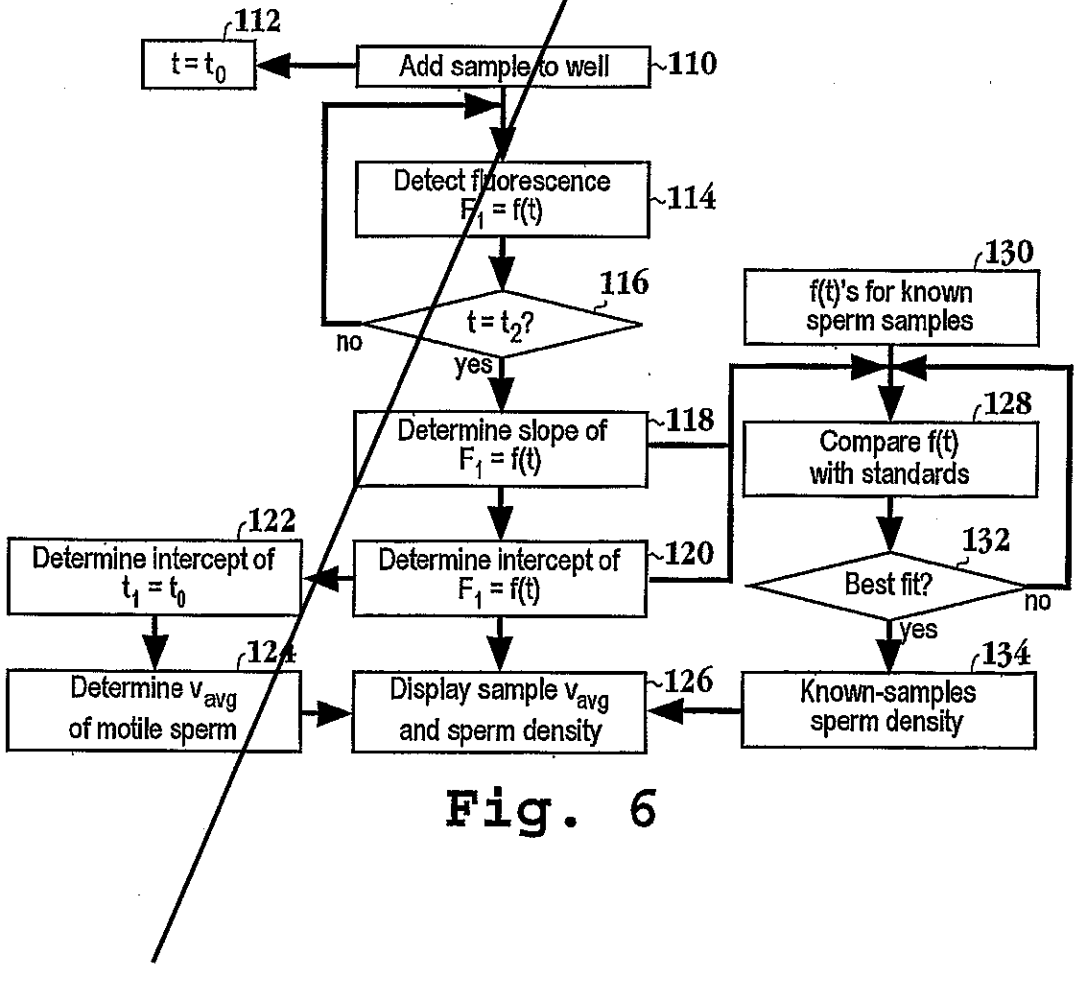

112
t = t0
Add sample to well
110
Detect fluorescence
F1 = f(t)
114
116
t = t2?
no
yes
130
f(t)'s for known
sperm samples
128
Compare f(t)
with standards
132
Best fit?
no
yes
118
Determine slope of
F1 = f(t)
122
Determine intercept of
t1 = t0
Determine intercept of
F1 = f(t)
120
124
Determine vavg
of motile sperm
Display sample vavg
and sperm density
126
134
Known-samples
sperm density

Fig. 6

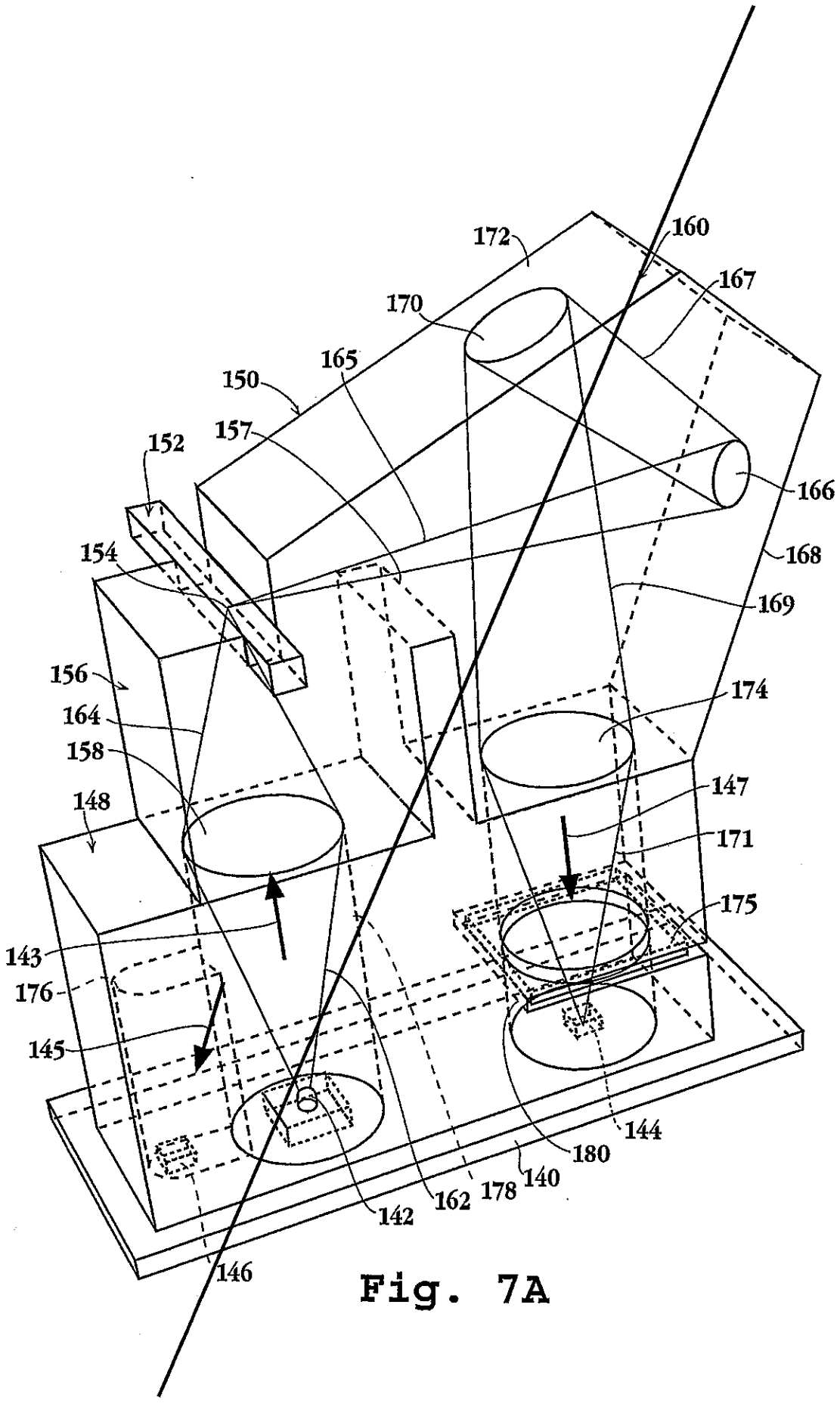

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Fig. 7A

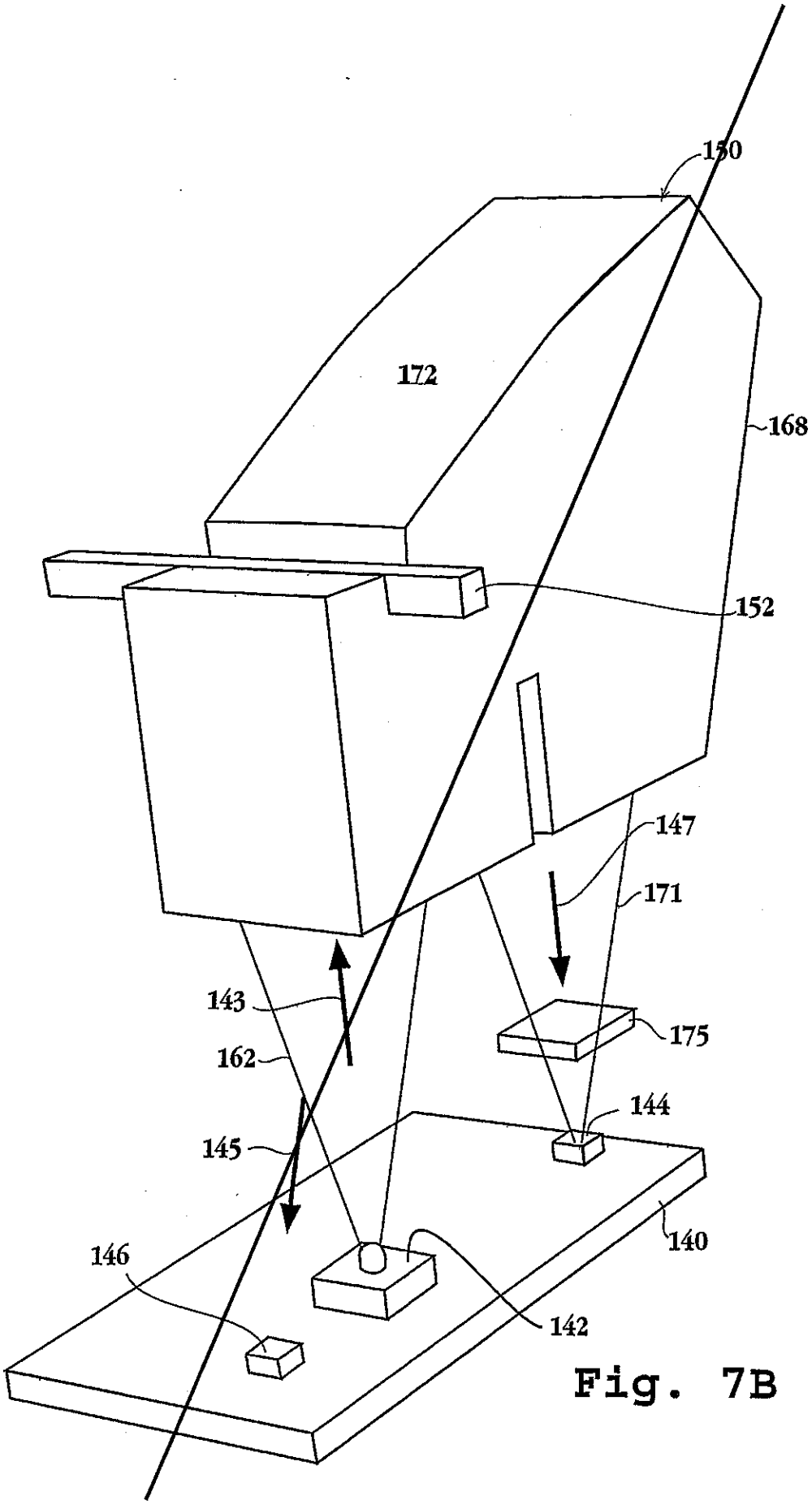


Fig. 7B

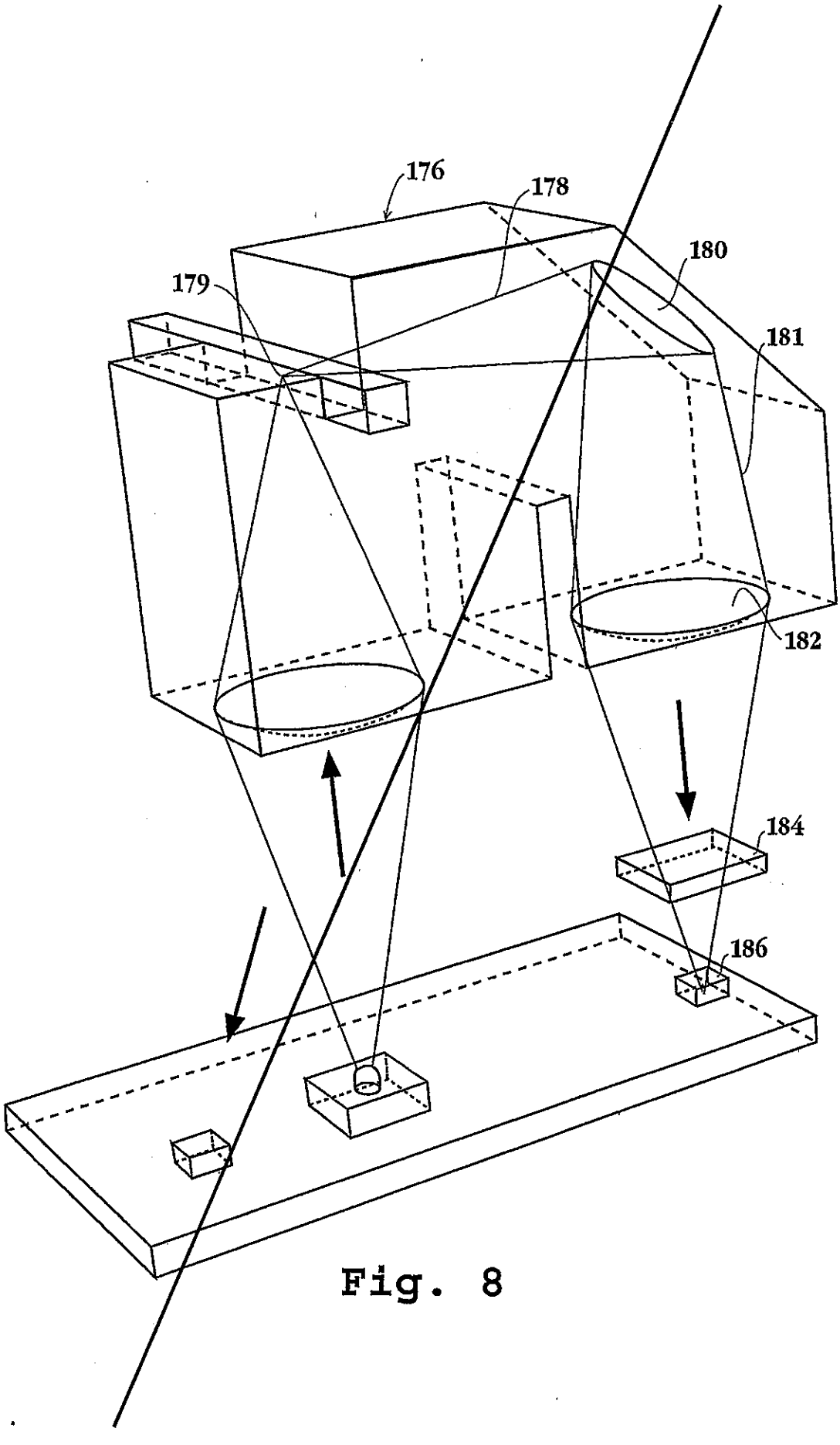


Fig. 8

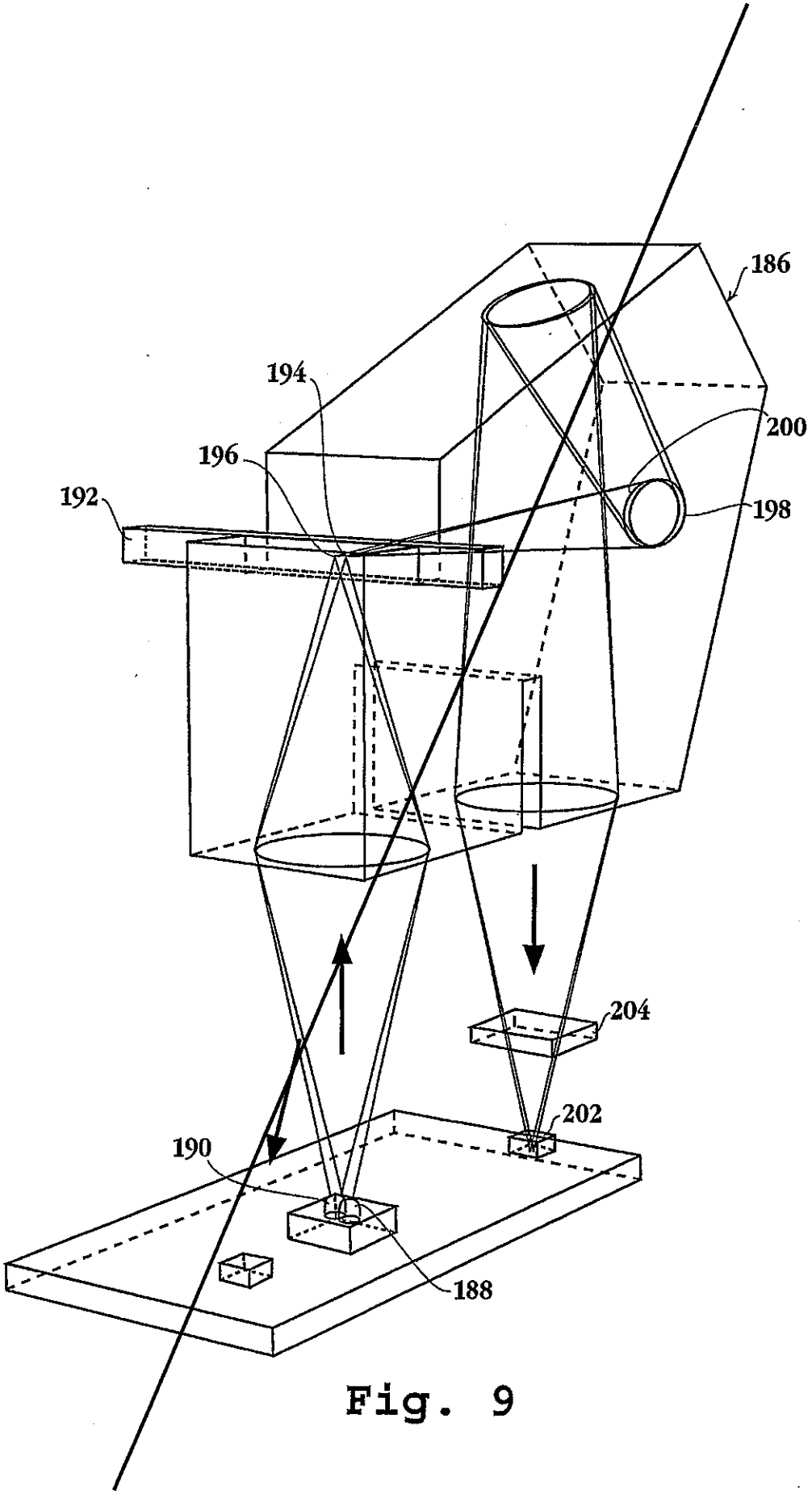


Fig. 9

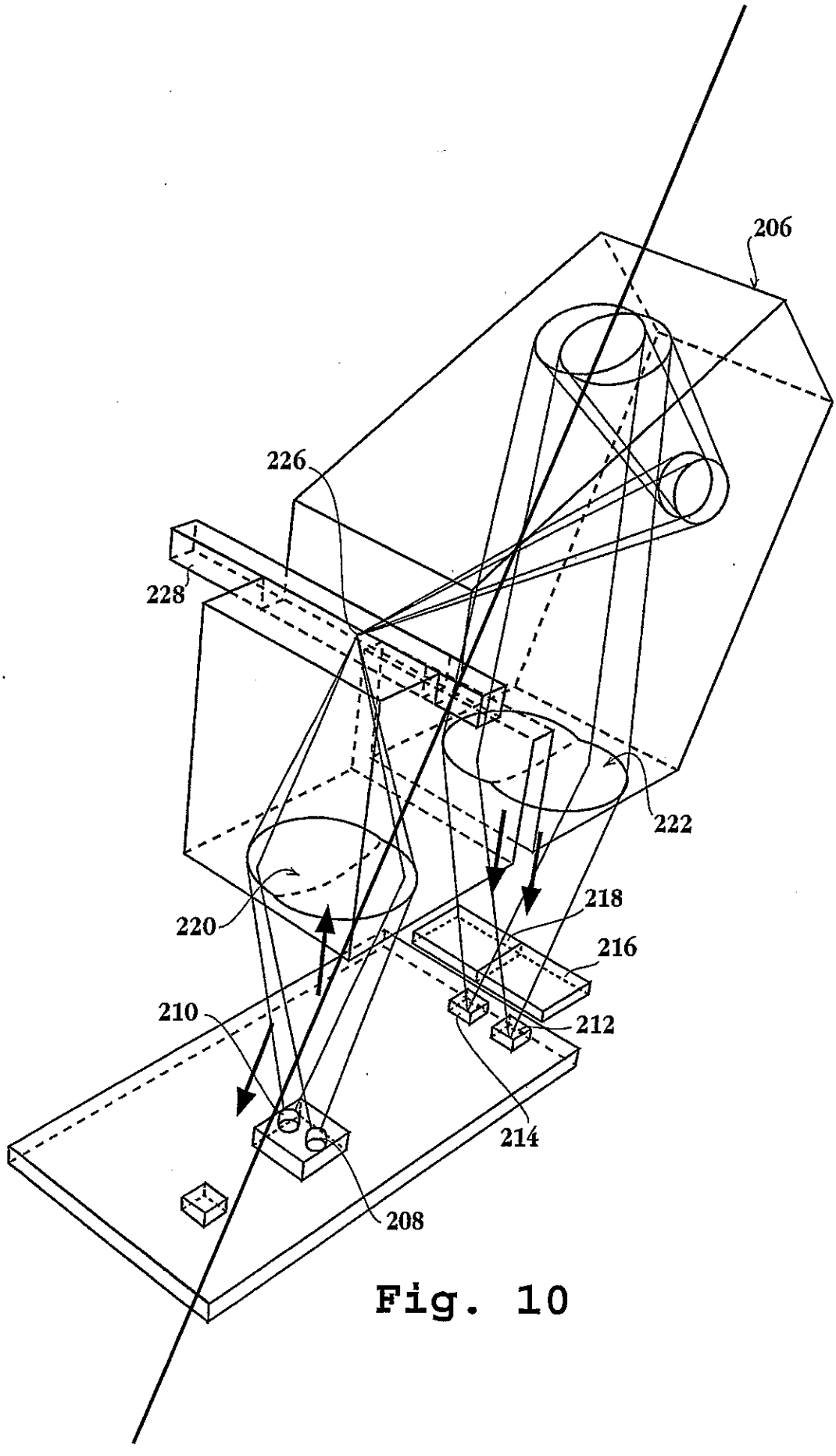


Fig. 10

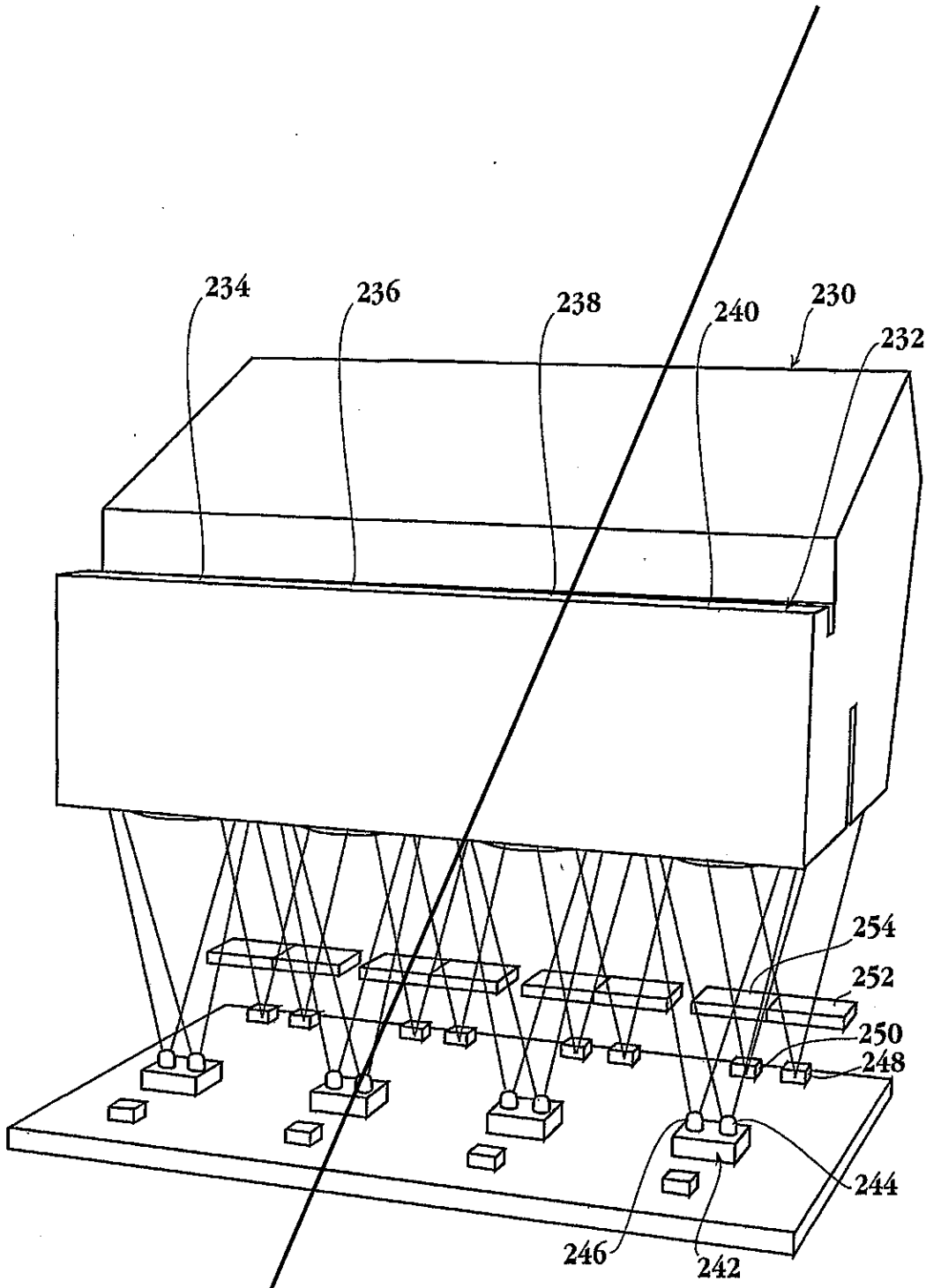


Fig. 11

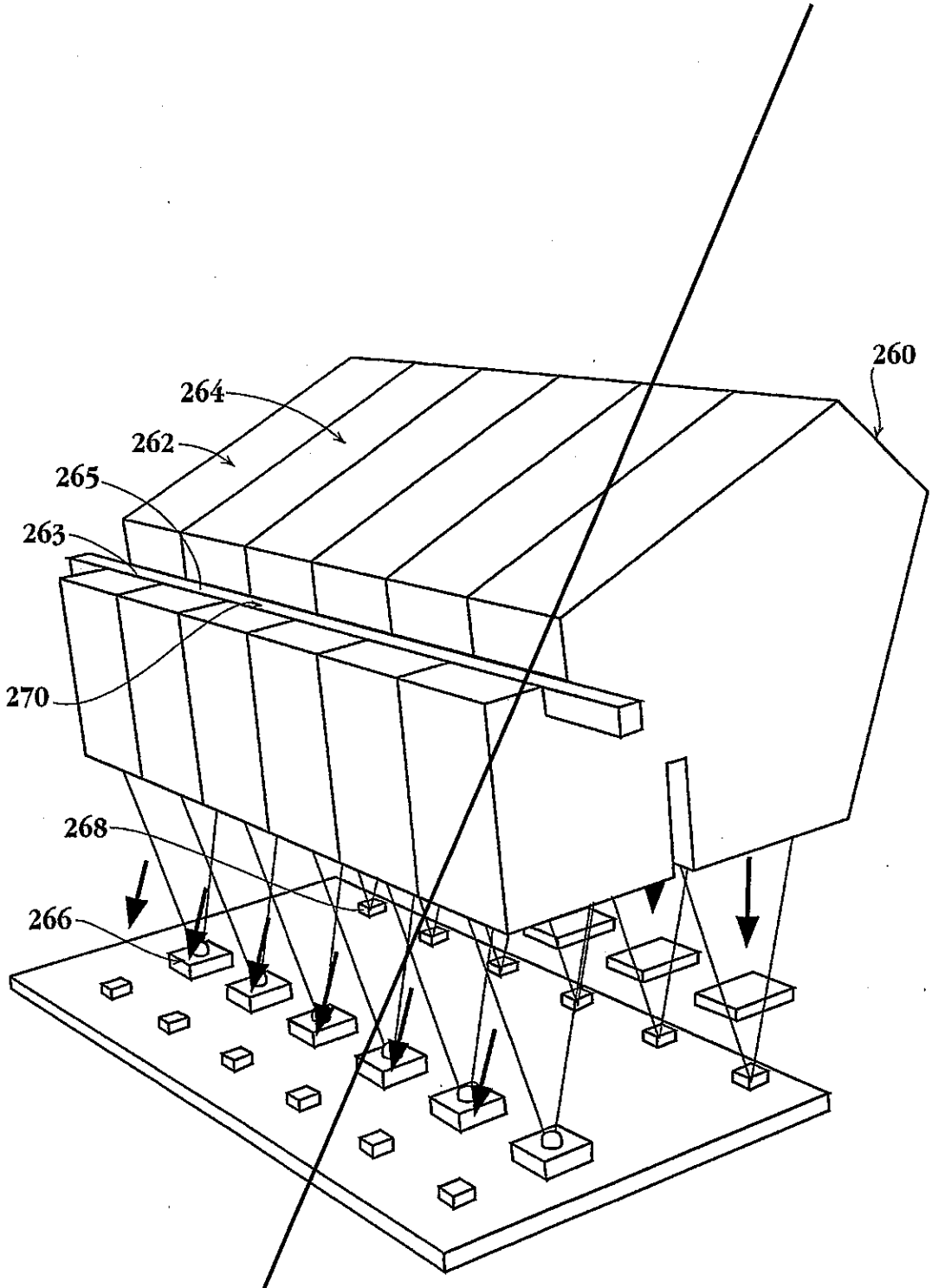


Fig. 12

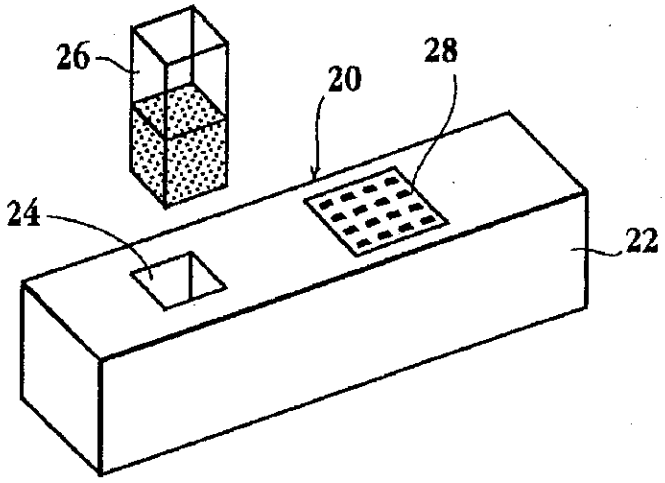

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Fig. 1

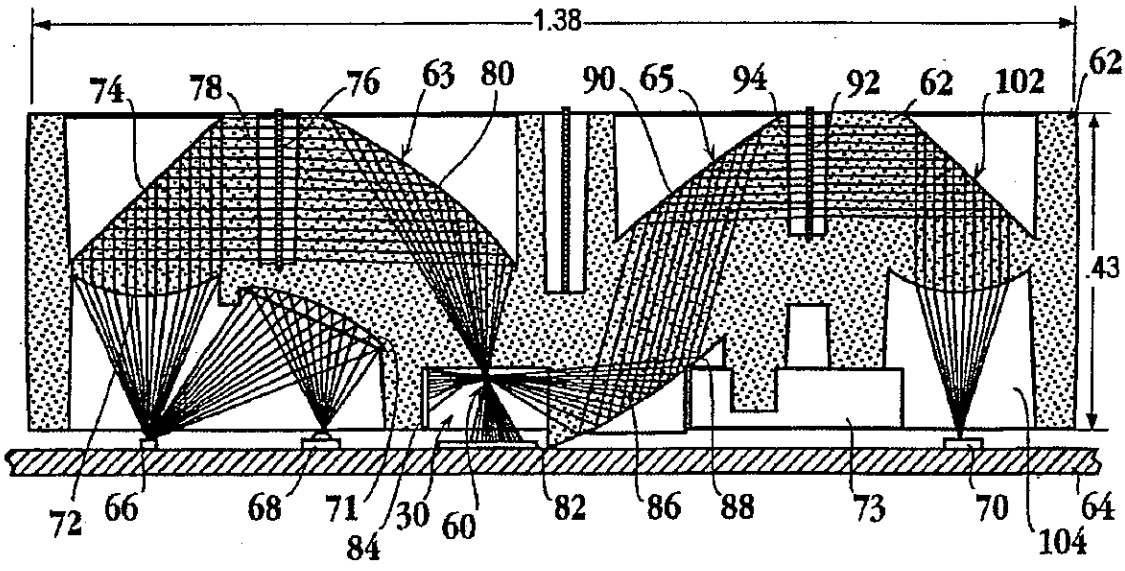

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Fig. 2

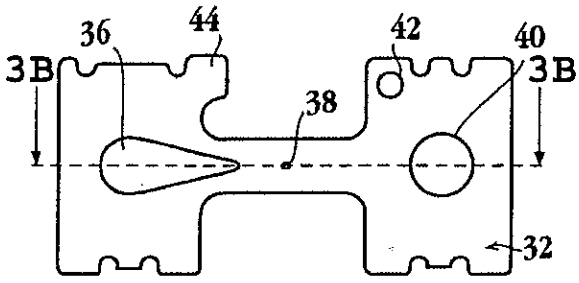


Fig. 3A

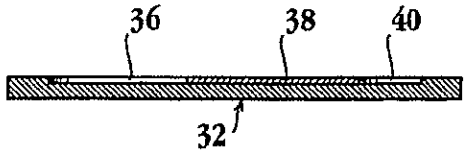


Fig. 3B

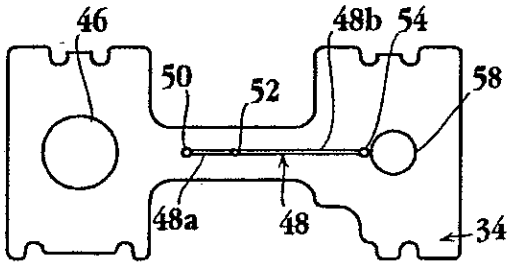


Fig. 3C

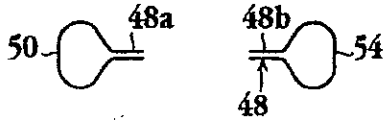


Fig. 3D

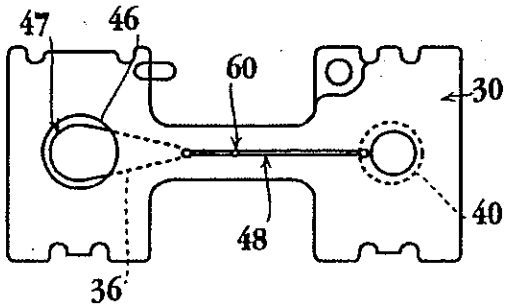


Fig. 3F

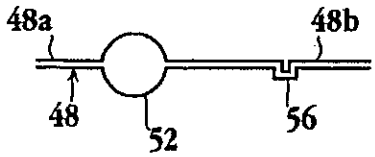


Fig. 3E

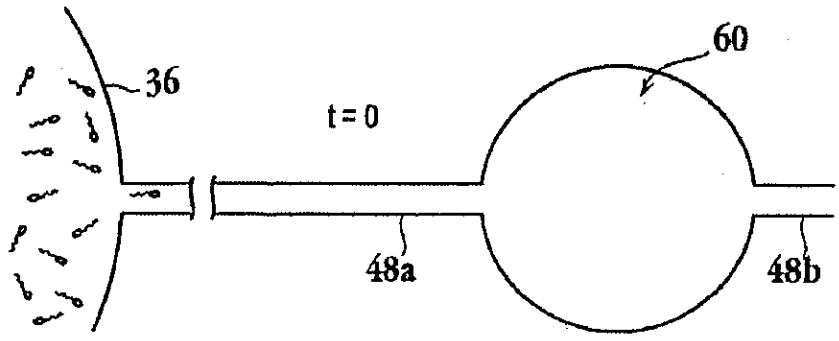


Fig. 4A

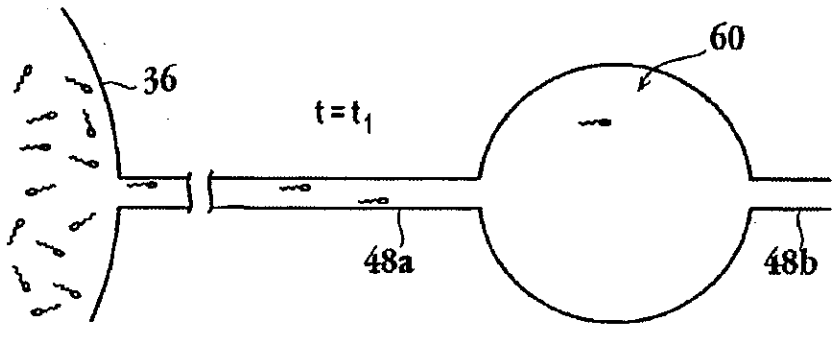


Fig. 4B

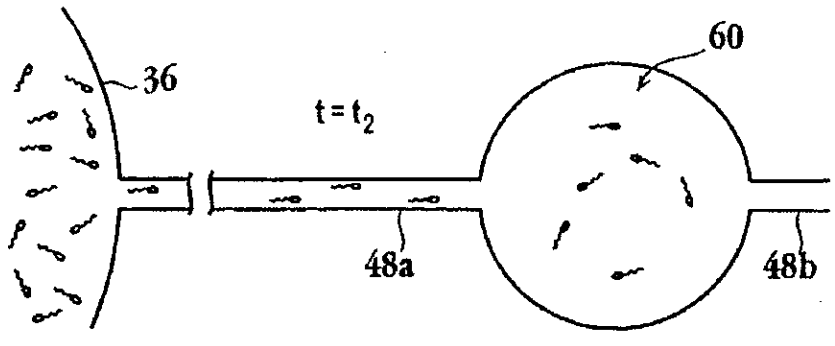


Fig. 4C

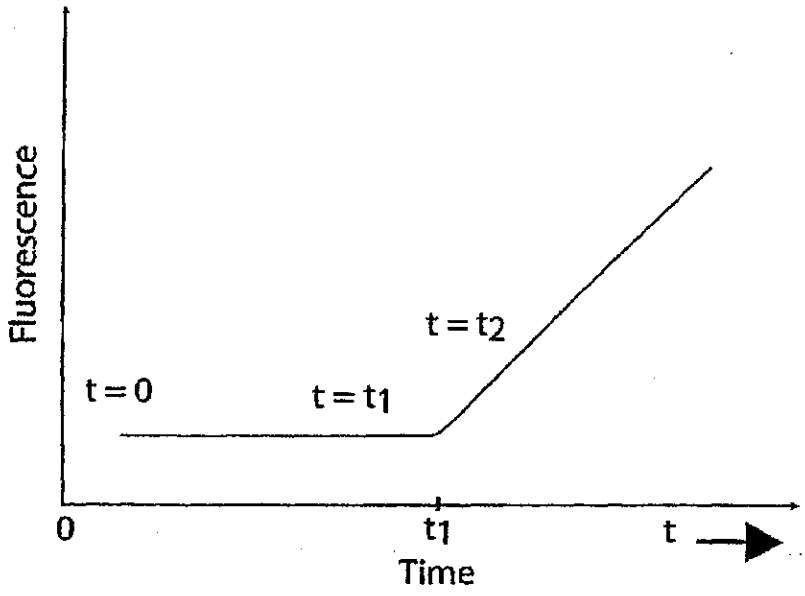

Fluorescence
t = 0
t = t1
t = t2
0
t1
t
Time

Fig. 5

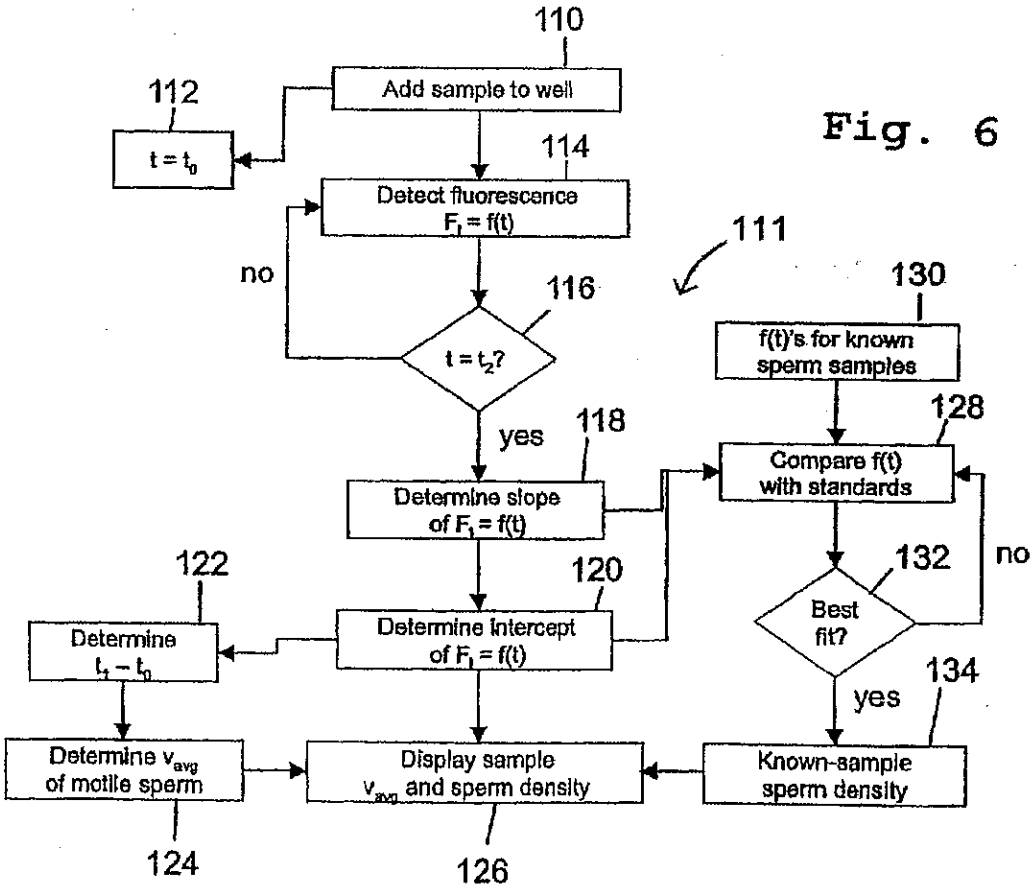

110
Add sample to well
112
t = t0
114
Detect fluorescence
F1 = f(t)
no
116
t = t2?
yes
118
Determine slope
of F1 = f(t)
122
Determine
t1 – t0
120
Determine intercept
of F1 = f(t)
Determine vavg
of motile sperm
124
Display sample
vavg and sperm density
126
111
130
f(t)'s for known
sperm samples
128
Compare f(t)
with standards
132
Best
fit?
no
134
yes
Known-sample
sperm density

Fig. 6

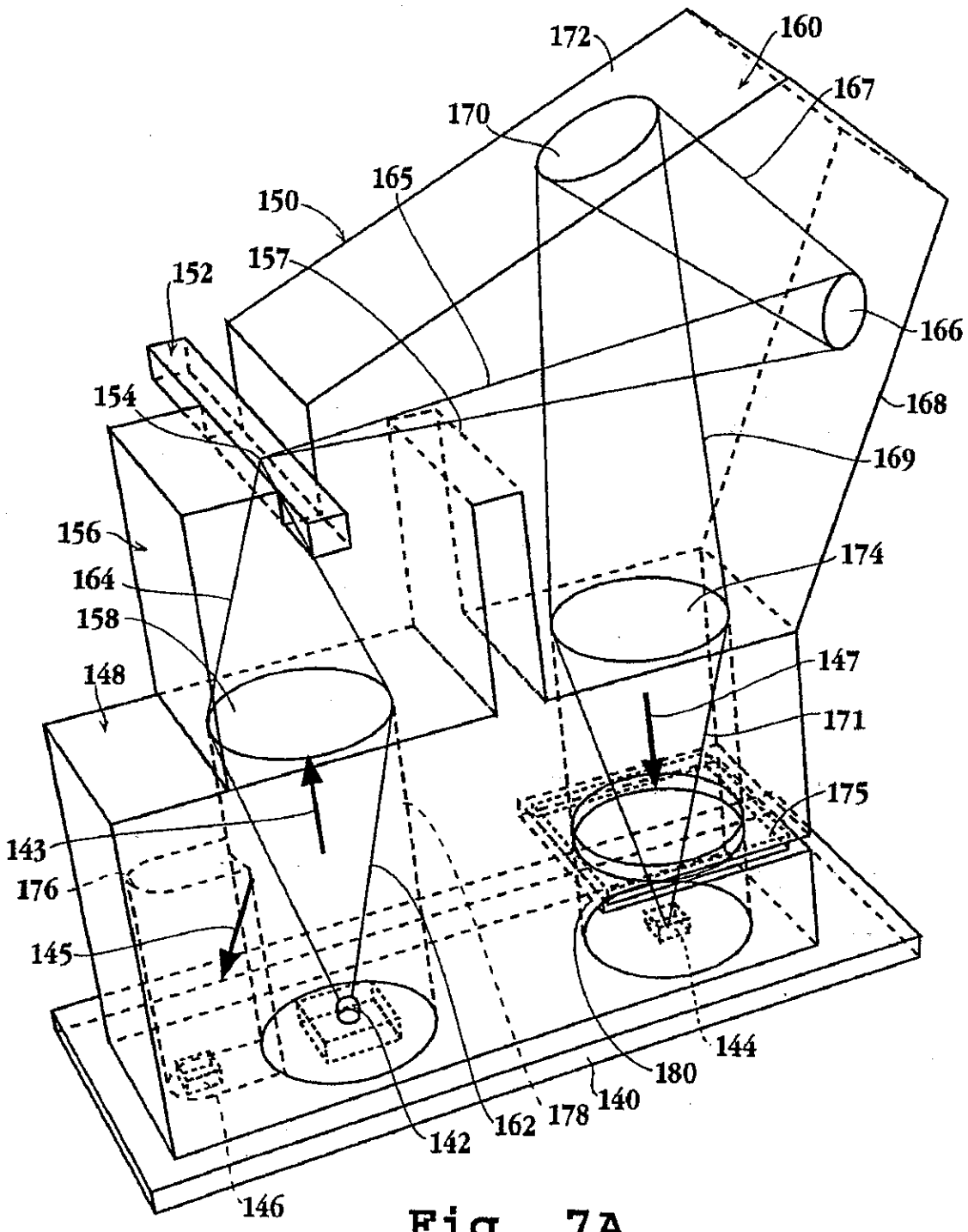

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Fig. 7A

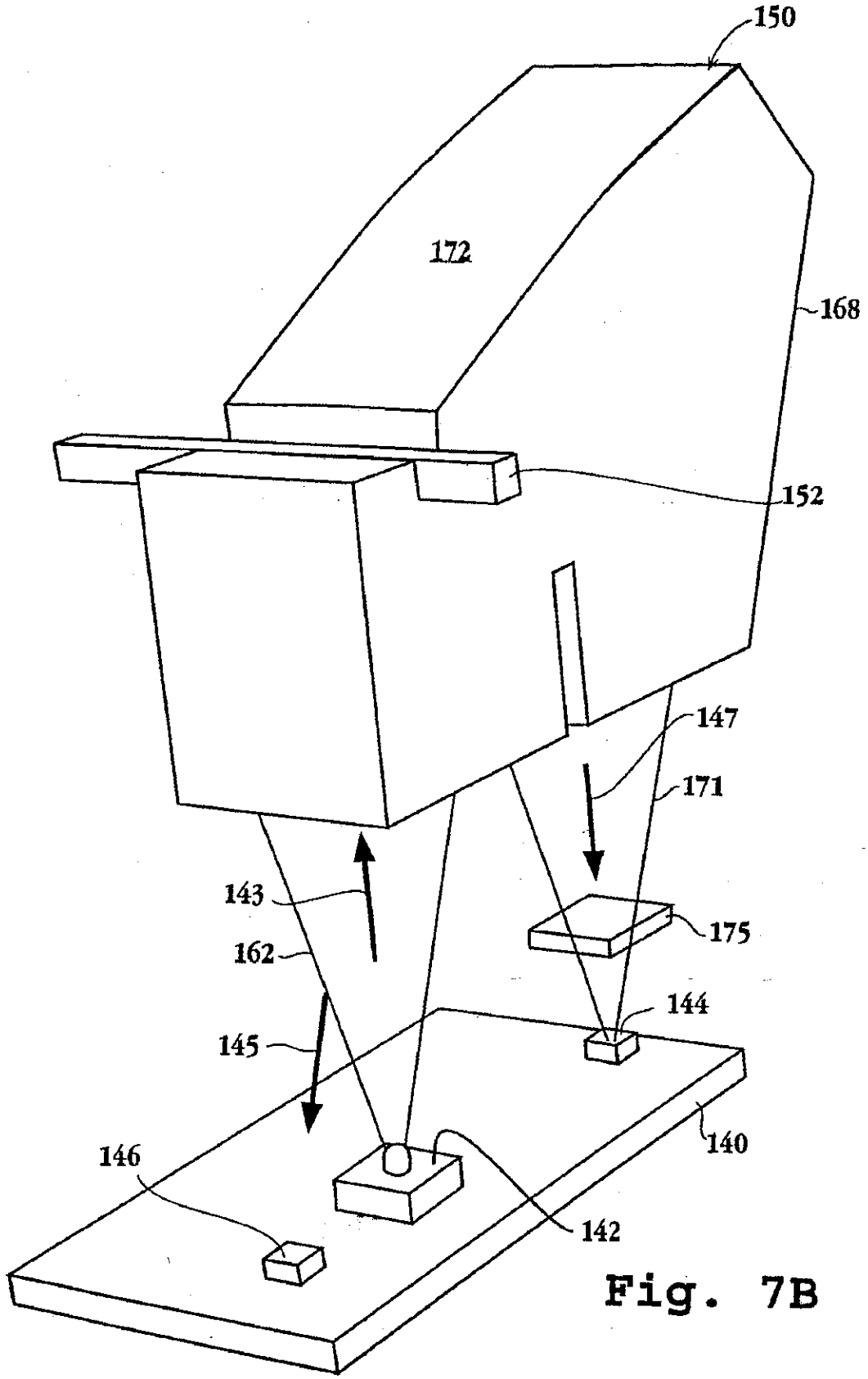


Fig. 7B

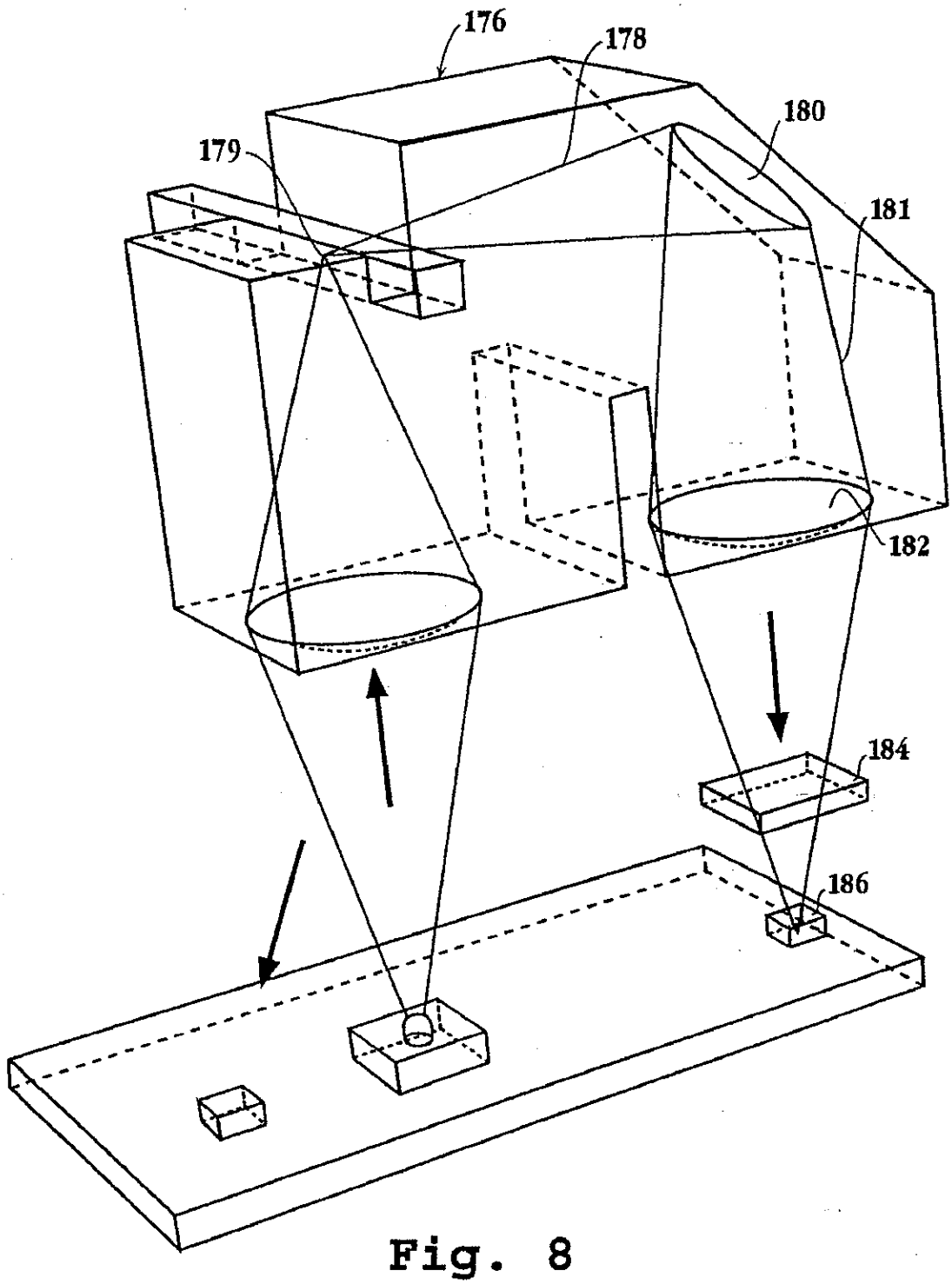


Fig. 8

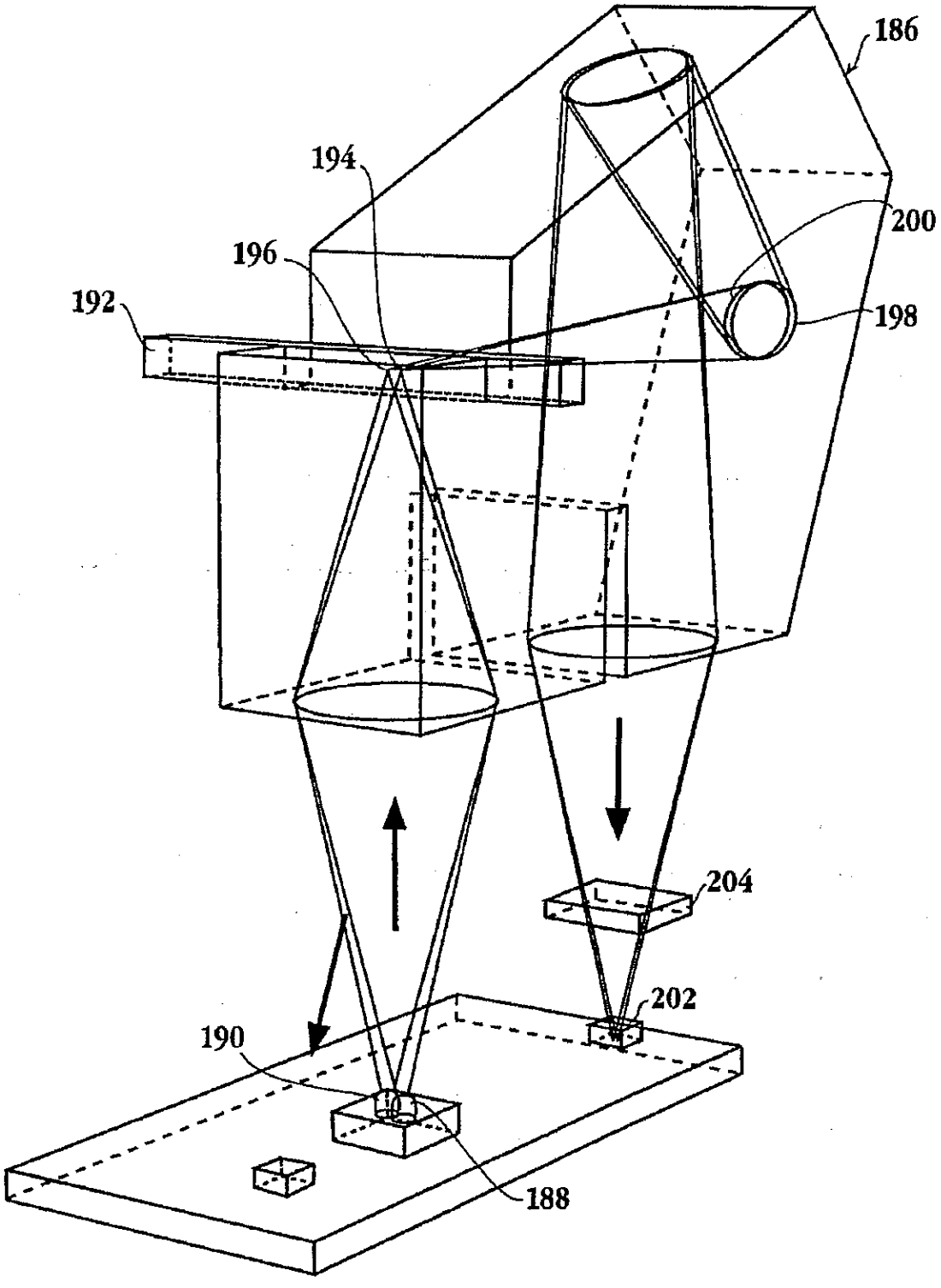


Fig. 9

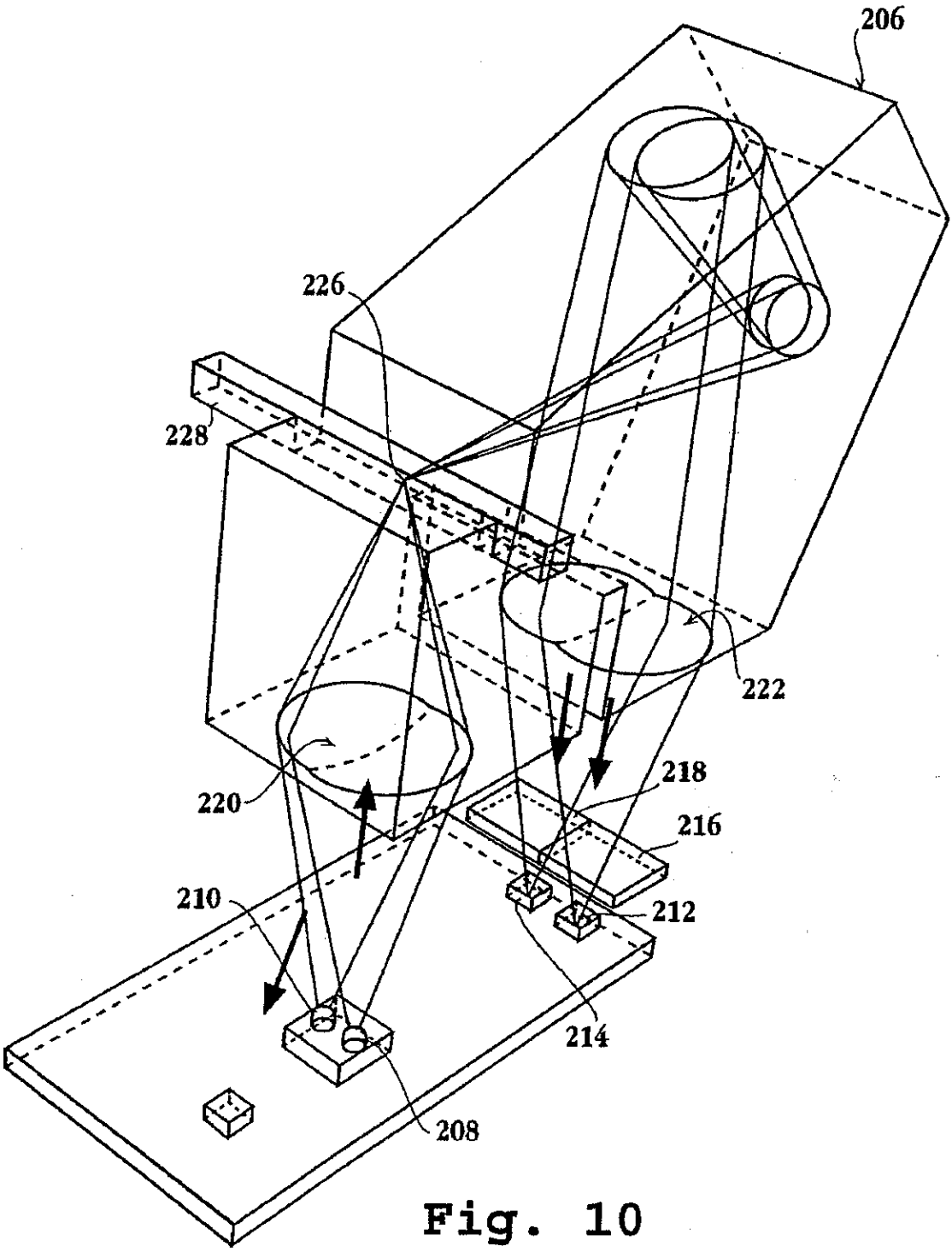


Fig. 10

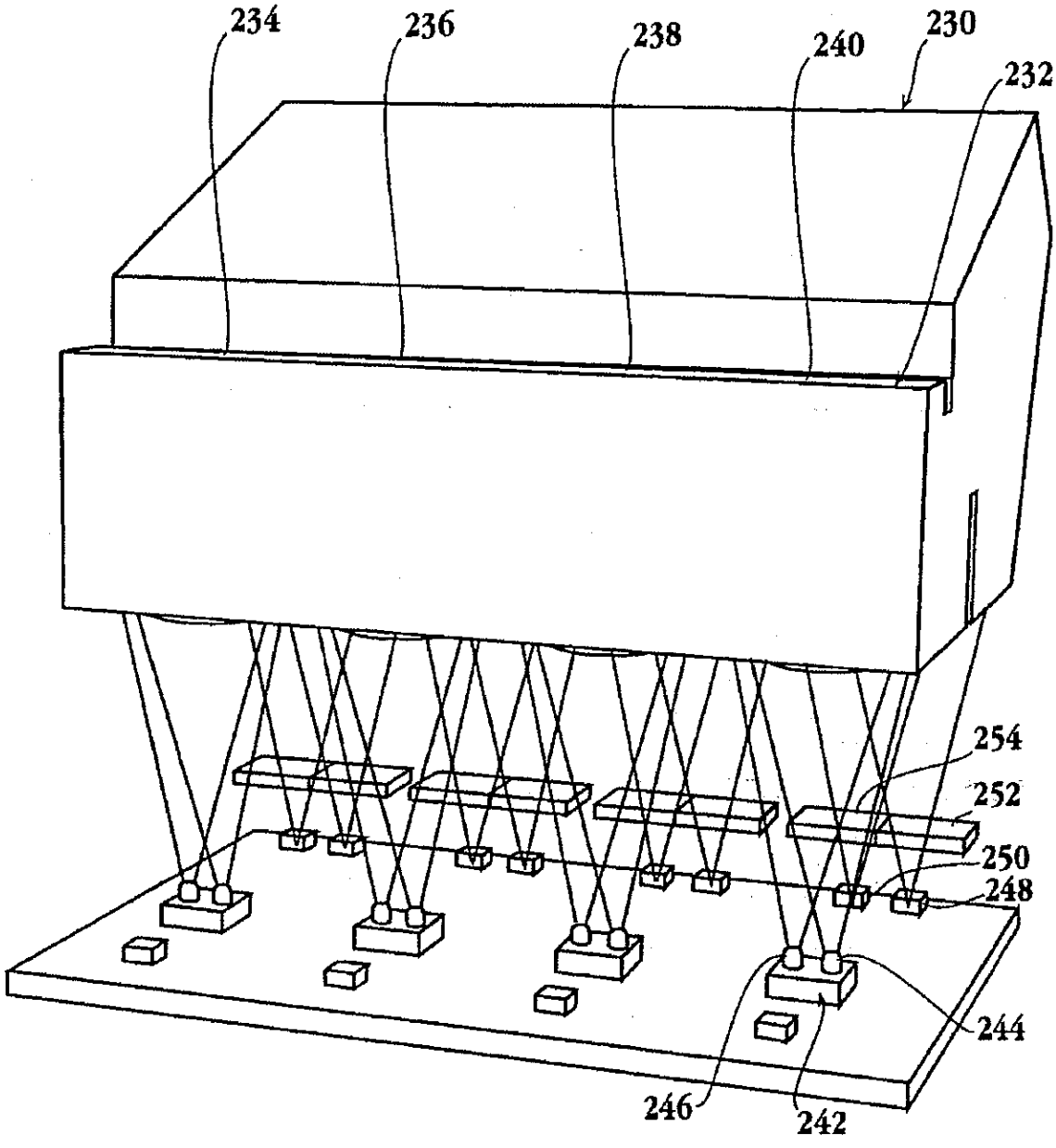


Fig. 11

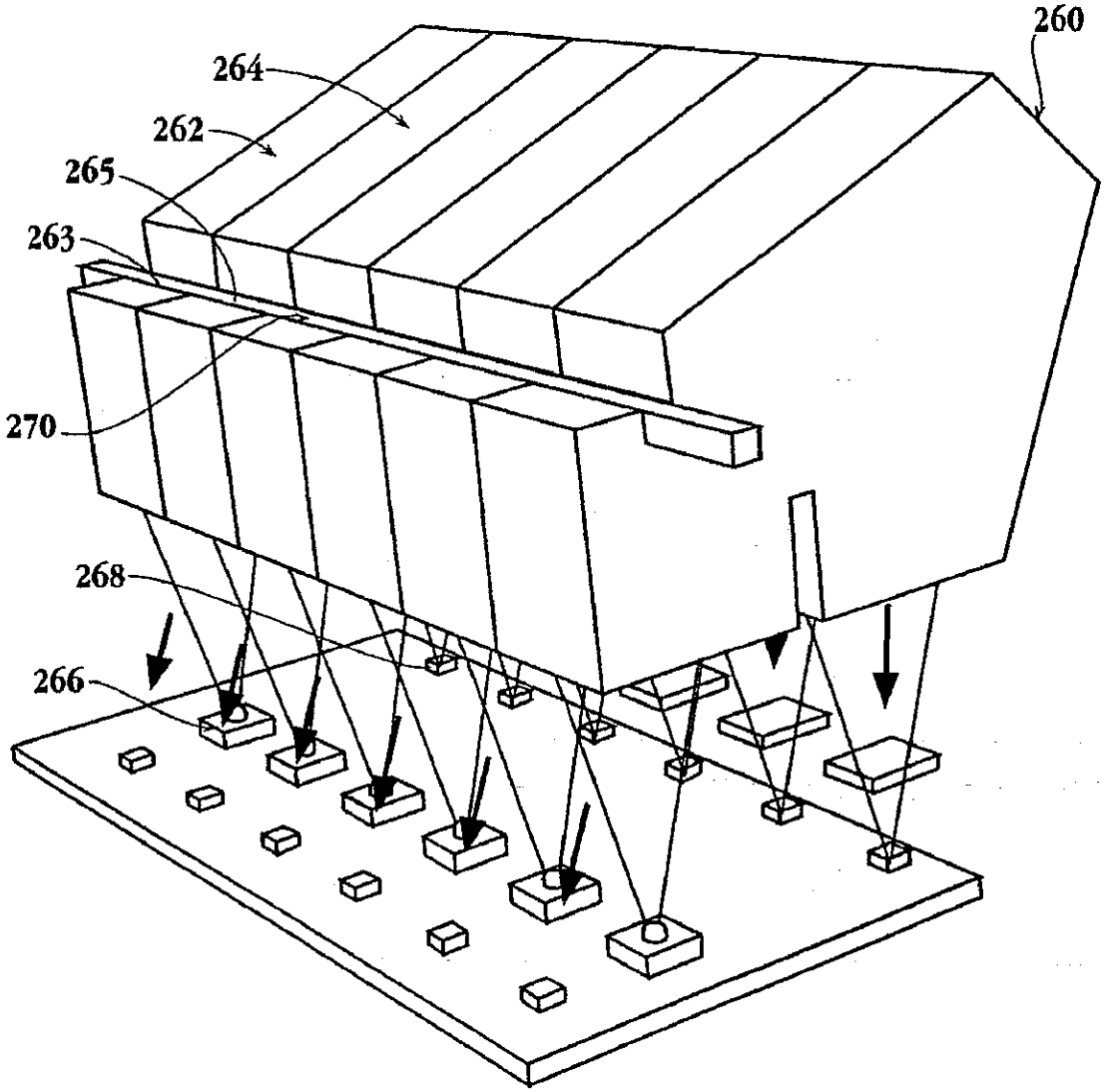


Fig. 12