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Claims

1. An apparatus for separating nodular material from non-nodular
5 material, the apparatus comprising:-
at least one container for receiving liquid containing nodular
material and non-nodular material;
at least one respective inlet for enabling liquid containing
nodular material and non-nodular material to enter at least one
10 said container;
at least one respective first outlet for enabling liquid to exit
at least one said container; and
at least one respective second outlet for enabling liquid to exit
at least one said container, wherein at least one said second
15 outlet is arranged at a greater height than at least one said
first outlet provided on the corresponding said container, and
entry of liquid via at least one said inlet into the container
causes reduction in velocity of the liquid.
- 20 2. An apparatus according to claim 1, further comprising barrier
means for obstructing a shortest path from at least one said inlet
to at least one said second outlet.
3. An apparatus according to claim 2, wherein the barrier means
25 comprises at least one plate.
4. An apparatus according to claim 2 or 3, wherein the barrier
means causes liquid to travel from at least one said inlet to at
least one said second outlet by passing under said barrier means.
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5. An apparatus according to any one of the preceding claims,
further comprising flow redirecting means for redirecting flow of
liquid towards at least one said first outlet.
- 35 6. An apparatus according to claim 5, wherein the flow
redirecting means comprises a curved surface.

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7. An apparatus according to any one of the preceding claims, wherein at least one said container comprises a respective body tapering towards at least one said first outlet.

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8. An apparatus according to any one of the preceding claims, wherein at least one said container comprises a lower surface inclined towards at least one said first outlet.

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9. An apparatus according to any one of the preceding claims, wherein at least one said inlet is directed towards a substantially central portion of a said container in a direction transverse to a direction extending from at least one said inlet to at least one said first outlet.

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10. An apparatus according to any one of the preceding claims, wherein at least one said inlet defines a nozzle.

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11. An apparatus according to any one of the preceding claims, further comprising pump means for directing liquid to at least one said inlet and/or directing liquid out of at least one said first outlet and/or directing liquid out of at least one said second outlet.

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12. An apparatus for removing nodular material from a floor of a body of water, the apparatus comprising:-

moving means for moving the apparatus relative to a floor of a body of water;

material removing means for removing nodular material from the

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floor of the body of water;

connector means adapted to be connected to a conduit to enable said removed nodular material to be transported to a vessel on the surface of the body of water; and

an apparatus for separating nodular material from non-nodular

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material according to any one of the preceding claims.

13. An apparatus for removing material from a floor of a body
of
5 water, the apparatus comprising:
first moving means for moving the apparatus substantially
vertically relative to a floor of a body of water;
second moving means for moving the apparatus substantially
horizontally relative to the floor of the body of water;
10 material removing means for removing material from the floor of
the body of water; and
connector means adapted to be connected to a conduit to enable
said removed material to be transported to a vessel on the surface
of the body of water.
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14. An apparatus according to claim 13, wherein the first
moving
means comprises at least one thruster.
- 20 15. An apparatus according to claim 13 or 14, wherein the
second
moving means comprises at least one thruster.
- 25 16. An apparatus according to any one of claims 13 to 15,
wherein the second moving means comprises a plurality of tracks.
17. An apparatus according to any one of claims 13 to 16,
further comprising buoyancy means for reducing the weight of the
apparatus in water.
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18. An apparatus according to any one of claims 13 to 17,
further comprising containment means for containing said removed
material prior to transport thereof to a vessel.
- 35 19. An apparatus for removing nodular material from a floor
of a body of water, the apparatus comprising:

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moving means for moving the apparatus relative to a floor of a body of water;

material removing means for removing nodular material from the floor of the body of water; and

- 5 connector means adapted to be connected to a conduit to enable said removed nodular material to be transported to a vessel on the surface of the body of water;

wherein the material removing means comprises at least one inlet and floor engaging means for engaging the floor of the body of
10 water, wherein the floor engaging means comprises a plurality of protrusions adapted to be arranged forwards of at least one said inlet in a direction of travel of the apparatus and to extend substantially in a direction of travel of the apparatus.

- 15 20. An apparatus according to claim 19, wherein the protrusions comprise a plurality of tines.

21. An apparatus according to claim 19 or 20, further comprising at least one first aperture arranged rearwards of at
20 least one said inlet in a direction of travel of the apparatus for allowing nodular material to pass therethrough.

22. An apparatus according to any one of claims 19 to 21, further comprising separator means arranged adjacent at least one
25 said inlet for separating nodular material from non-nodular material of the floor of the body of water.

23. An apparatus according to claim 22, wherein the separator means includes at least one surface inclined in use
30 relative to the floor of the body of water and having at least one second aperture therethrough for enabling non-nodular material to pass therethrough and preventing said nodular material from passing therethrough.

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24. An apparatus according to any one of claims 19 to 23, further comprising suction means for removing nodular material from at least one said inlet.

- 5 25. An apparatus according to claim 24, wherein the suction means is adapted to reverse the direction of flow of water therethrough.