



BAZOOKA-FARMSTAR, LLC (PETITIONER)
v. NUHN INDUSTRIES LTD. (PATENT OWNER)

Case No. IPR2023-01161

U.S. Patent No. 11,358,425

PATENT OWNER'S MOTION TO AMEND DEMONSTRATIVES

October 11, 2024

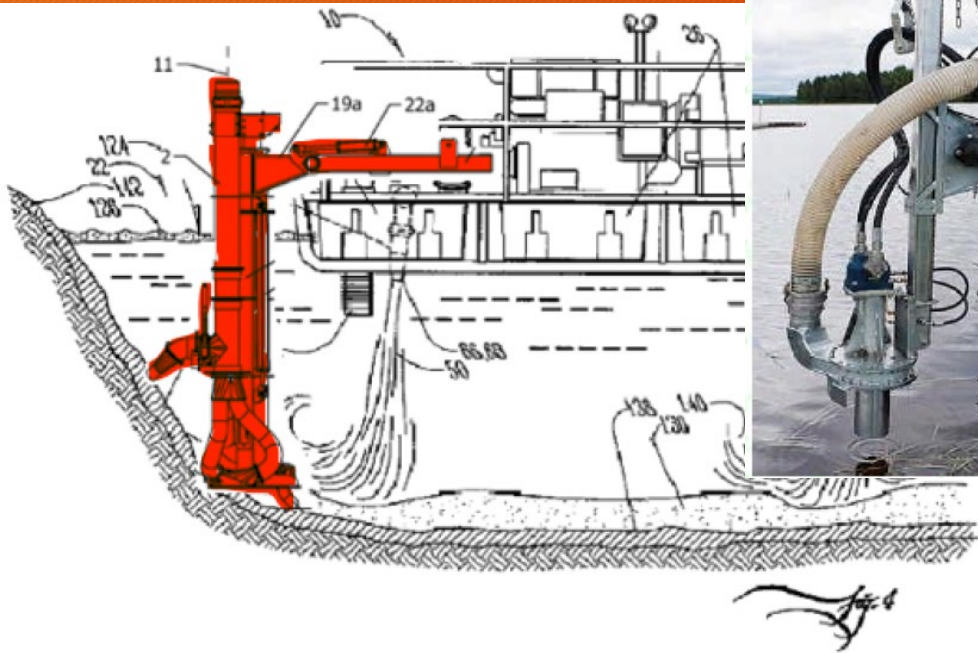


FUNDAMENTAL QUESTION

2

If a POSITA combined these references without hindsight, where would they put the submersible pump?

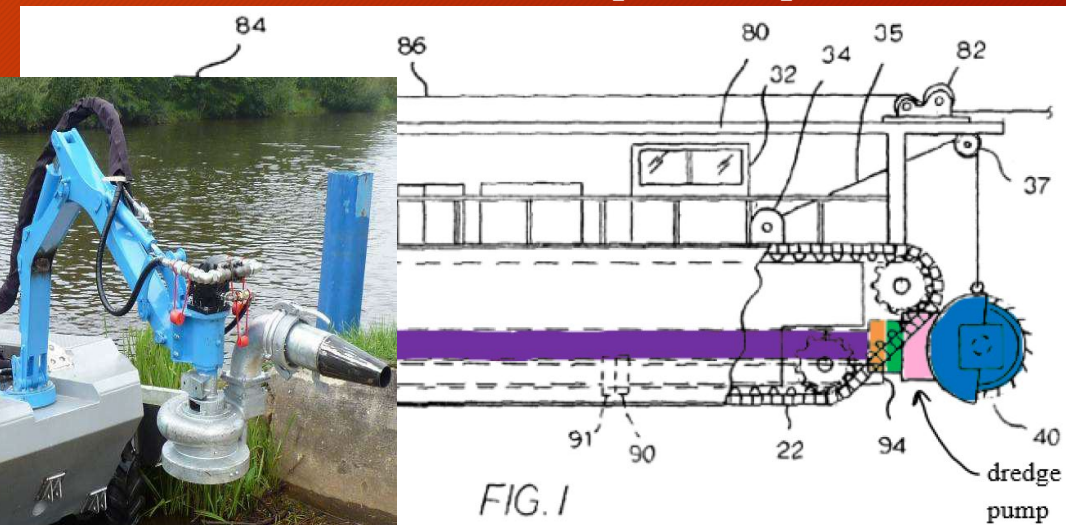
Manure Manager [EX1088]



Truxor [EX1006]



Cheramie [EX1087]



SenwaTec [EX1012]

DEMONSTRATIVE EXHIBIT - NOT EVIDENCE

FUNDAMENTAL QUESTION:

Where would a POSITA put a submersible pump?

Answer: At the far end of a boom arm at the front or rear of the vehicle

173. Putting this all together, if a POSITA set out to design a new amphibious manure agitation vehicle utilizing a fluid pump, and had the knowledge and motivation to combine the art identified above (for arguments sake), they would have placed the pump either high and drying in the floatable vehicle body based on the teachings of the Group 1 prior art (Carrier and Yoon) and the Group 3 prior art (Puck) or they would have placed the pump on the end of a boom arm at the front or back of the vehicle based on the teachings of the Group 2 prior art (Truxor, SenwaTec, Cheramie, and Wickoren) and the Group 4 prior art (Manure-Manager, Houle, and Depault). The prior art does not teach or suggest the claimed arrangements where the liquid manure pump is positioned along the underside of the floatable vehicle body.

EX2099, ¶173.

Substitute Claim 22 Recites a Novel and Non-Obvious Location for the Submersible Manure Pump

22. An amphibious vehicle, comprising:
a floatable vehicle body with a front, a rear, and an underside;
ground engaging propulsion structure comprising a plurality of ground engaging elements powered by a hydraulic motor;

a liquid manure pump for pumping liquid manure, the liquid manure pump including a housing and an impeller that are positioned along the underside of the floatable vehicle body between at least two of the ground engaging elements such that the housing and the impeller are rearward of the front of the vehicle body and forward of the rear of the floatable vehicle body and such that the impeller is immersed in and configured to pump the liquid manure when the vehicle is floating;

a power source connected to a hydraulic pump, the power source configured to provide power to both the ground engaging propulsion structure and the liquid manure pump; and,

a wireless remote control configured to enable an operator who is remote from the vehicle to: (1) control the ground engaging propulsion structure; (2) control a flow of liquid manure from the liquid manure pump; (3) control at least one of the speed and direction of the vehicle when the vehicle is ground engaging; and (4) control at least one of the speed and direction of the vehicle when the vehicle is floating.

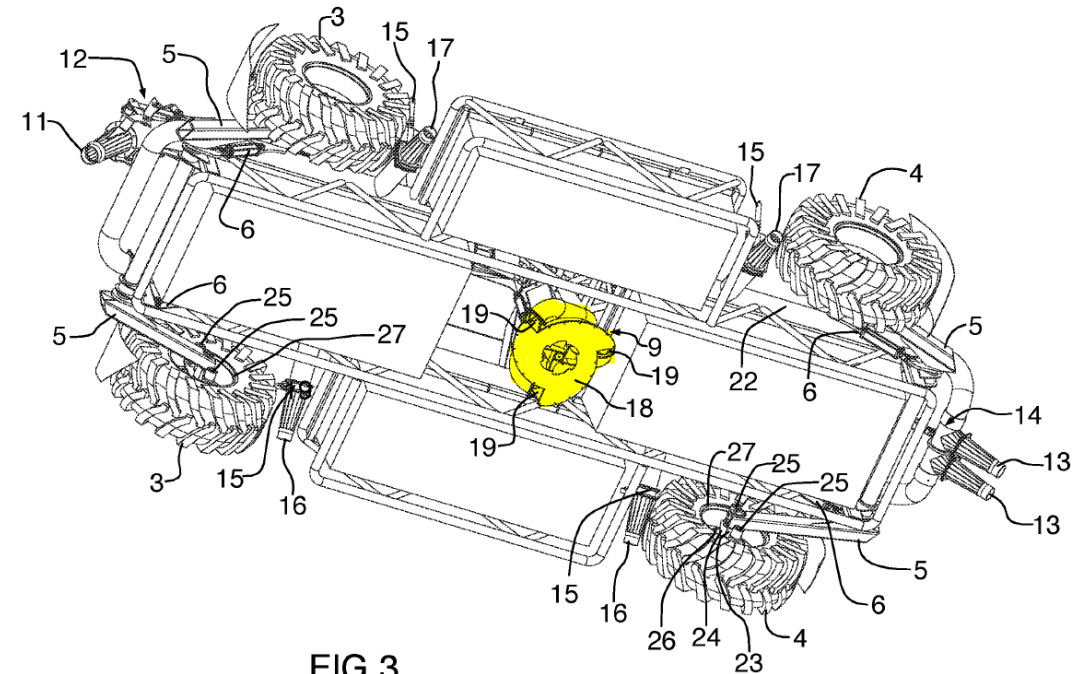
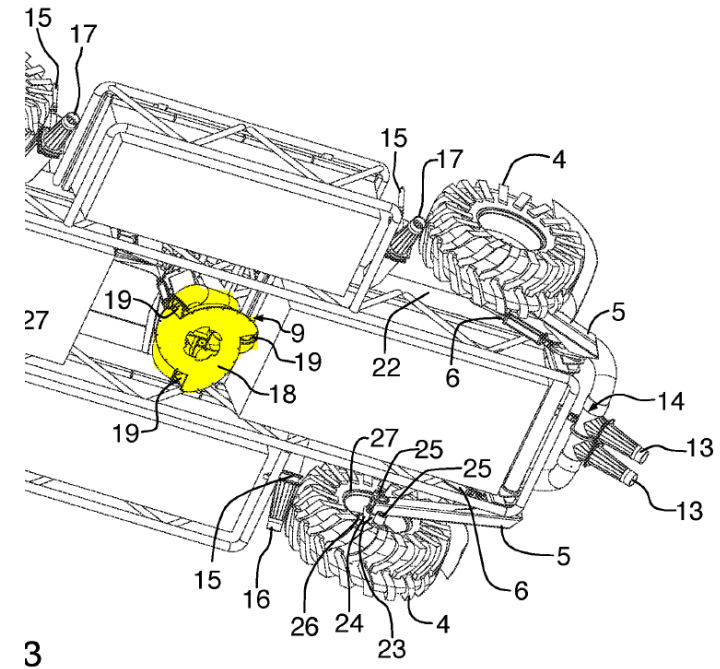


FIG.3

Substitute Claim 22 Recites a Novel and Non-Obvious Location for the Submersible Manure Pump

118. As compared to Claim 1 of the '425 Patent, which I have previously opined on, the paragraph of **Substitute Claim 22** highlighted above **set forth a number of new requirements** for the liquid manure pump by specifying that **the liquid manure pump is mounted in such a way that the housing and an impeller are:**

- (1) positioned along the underside of the floatable vehicle body, AND**
- (2) positioned between at least two of the ground engaging elements, AND**
- (3) positioned rearward of the front of the vehicle body and forward of the rear of the floatable vehicle body, AND**
- (4) the impeller must be positioned such that it is immersed in the liquid manure when the vehicle is floating.**



Substitute Claim 27 Recites a Novel and Non-Obvious Location for the Submersible Manure Pump

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27. The vehicle of claim 23, wherein the vehicle further comprises a nozzle at the end of the conduit, wherein the ground engaging propulsion structure comprises a front set of ground engaging wheels that are rotatably attached to a front set of spindles and a rear set of ground engaging wheels that are rotatably attached to a rear set of spindles, and wherein the liquid manure pump is positioned rearward of the front set of spindles and forward of the rear set of spindles.

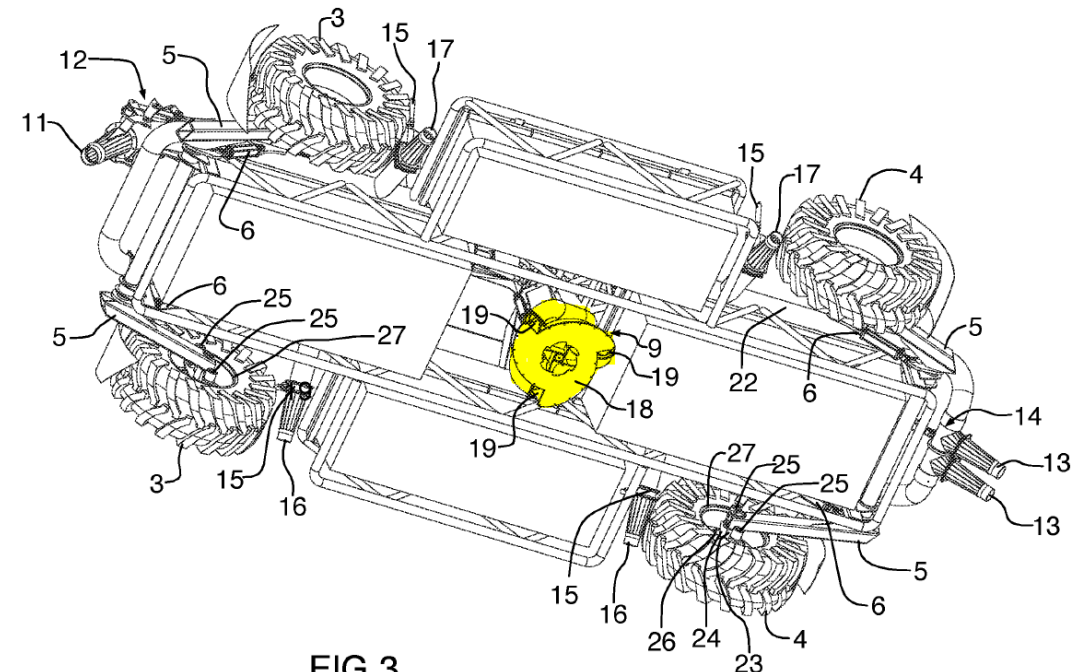


FIG.3

The Substitute Claims Recite a Novel and Non-Obvious Location for the Submersible Manure Pump

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The claimed location of the pump produces the new and unexpected results



EX2007, 3.

EX2006, 2.

DEMONSTRATIVE EXHIBIT - NOT EVIDENCE

GROUND 1 - Claims 22-25, 27-28, and 33-40 Are Not Rendered Obvious by Cheramie [EX1087] in Combination with Yoon [EX1011] or Carrier [EX1005]

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22. An amphibious vehicle, comprising:

a floatable vehicle body with a front, a rear, and an underside;

ground engaging propulsion structure comprising a plurality of ground engaging elements powered by a hydraulic motor;

a liquid manure pump for pumping liquid manure, the liquid manure pump including a housing and an impeller that are positioned along the underside of the floatable vehicle body between at least two of the ground engaging elements such that the housing and the impeller are rearward of the front of the vehicle body and forward of the rear of the floatable vehicle body and such that the impeller is immersed in and configured to pump the liquid manure when the vehicle is floating;

a power source connected to a hydraulic pump, the power source configured to provide power to both the ground engaging propulsion structure and the liquid manure pump; and,

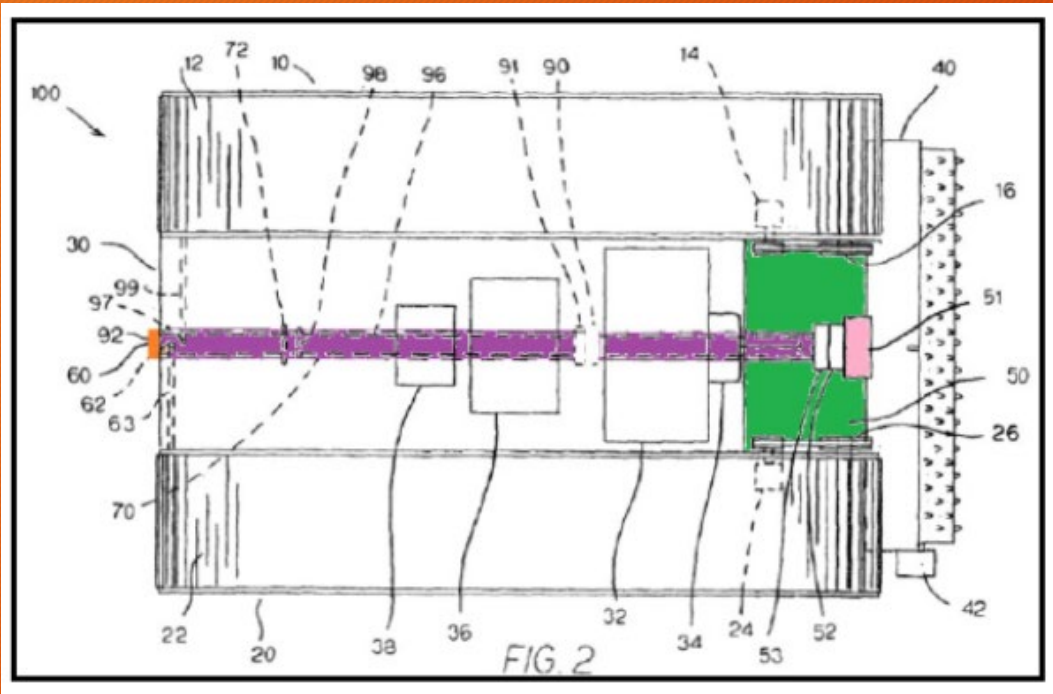
a wireless remote control configured to enable an operator who is remote from the vehicle to: (1) control the ground engaging propulsion structure; (2) control a flow of liquid manure from the liquid manure pump; (3) control at least one of the speed and direction of the vehicle when the vehicle is ground engaging; and (4) control at least one of the speed and direction of the vehicle when the vehicle is floating.

27. The vehicle of claim 23, wherein the vehicle further comprises a nozzle at the end of the conduit, wherein the ground engaging propulsion structure comprises a front set of ground engaging wheels that are rotatably attached to a front set of spindles and a rear set of ground engaging wheels that are rotatably attached to a rear set of spindles, and wherein the liquid manure pump is positioned rearward of the front set of spindles and forward of the rear set of spindles.

GROUND 1 - Claims 22-25, 27-28, and 33-40 Are Not
Rendered Obvious by Cheramie [EX1087] in
Combination with Yoon [EX1011] or Carrier [EX1005]

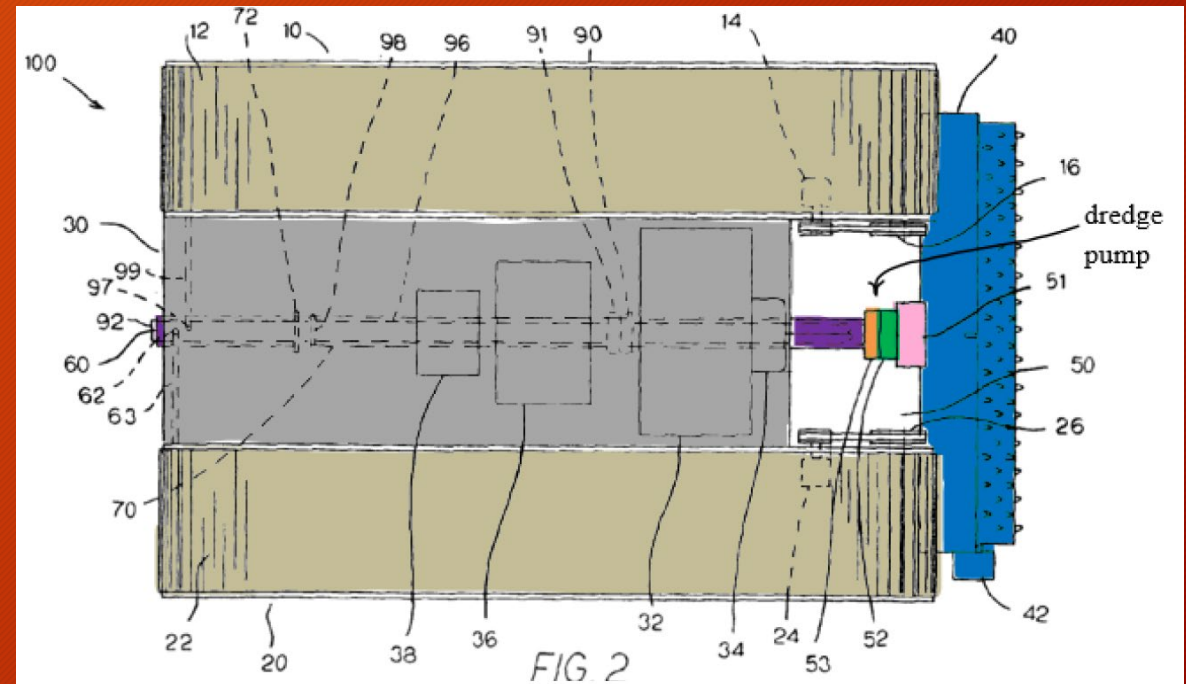
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Petitioner's Expert:



EX1109, ¶59.

Patent Owner's Expert:

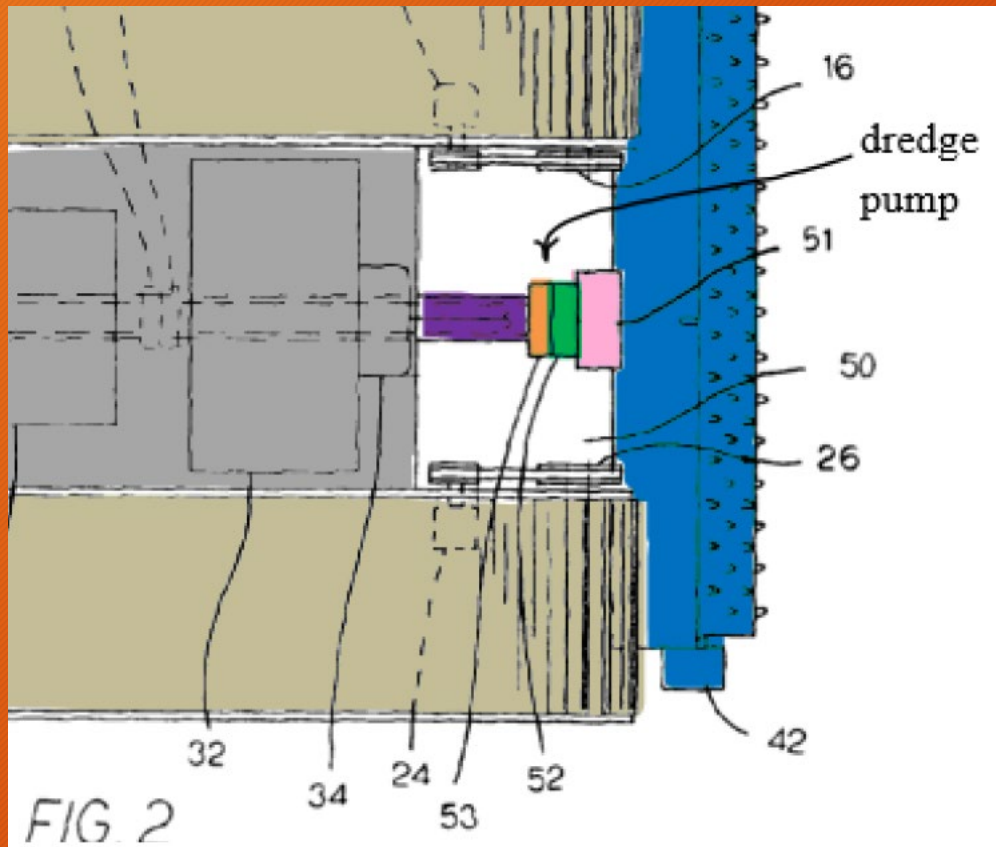


EX2099, ¶193.

GROUND 1 - Claims 22-25, 27-28, and 33-40 Are Not Rendered Obvious by Cheramie [EX1087] in Combination with Yoon [EX1011] or Carrier [EX1005]

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Patent Owner's Expert:



Cheramie [EX1087]:

conventional fashion. Dredge pump 50 includes both impeller housing 51 and ten-inch hydraulic pump 52.

EX1087, 4:26-27.

137 links hydraulic pump 37A to first hydraulic drive motor 14, second hydraulic drive motor 24, hydraulic drive motor 53 mounted adjacent to dredge pump 50, hydraulic drive motor 91 mounted adjacent to water pump 90, hydraulic ram

EX1087, 4:42-45.

EX2099, ¶193.

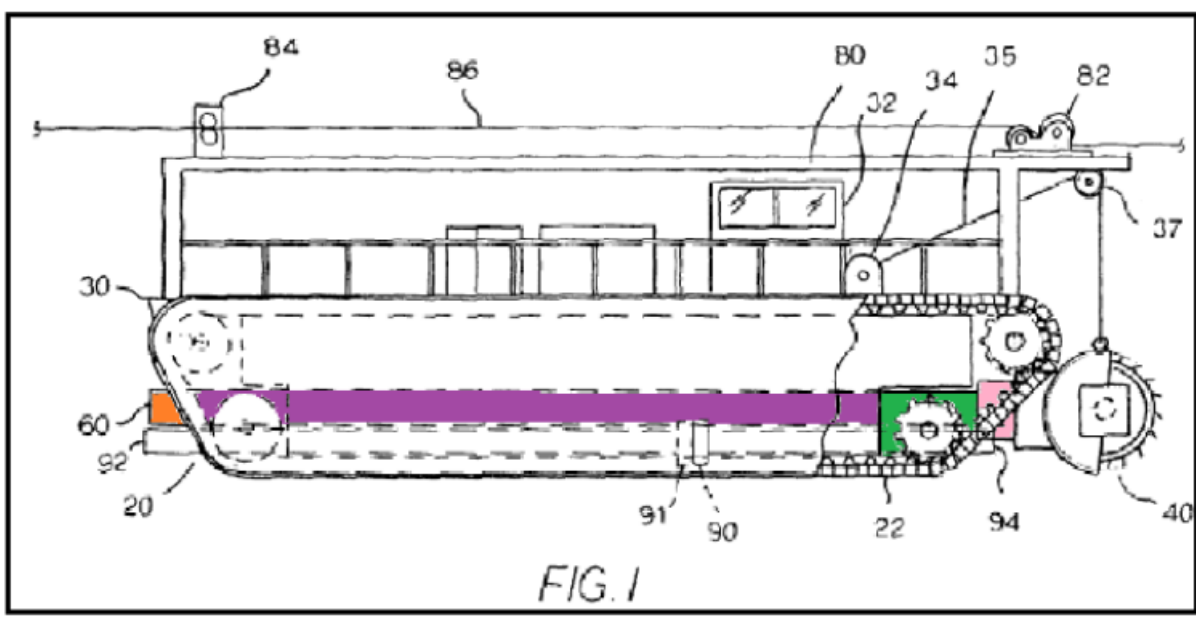
DEMONSTRATIVE EXHIBIT - NOT EVIDENCE

GROUND 1 - Claims 22-25, 27-28, and 33-40 Are Not Rendered Obvious by Cheramie [EX1087] in Combination with Yoon [EX1011] or Carrier [EX1005]

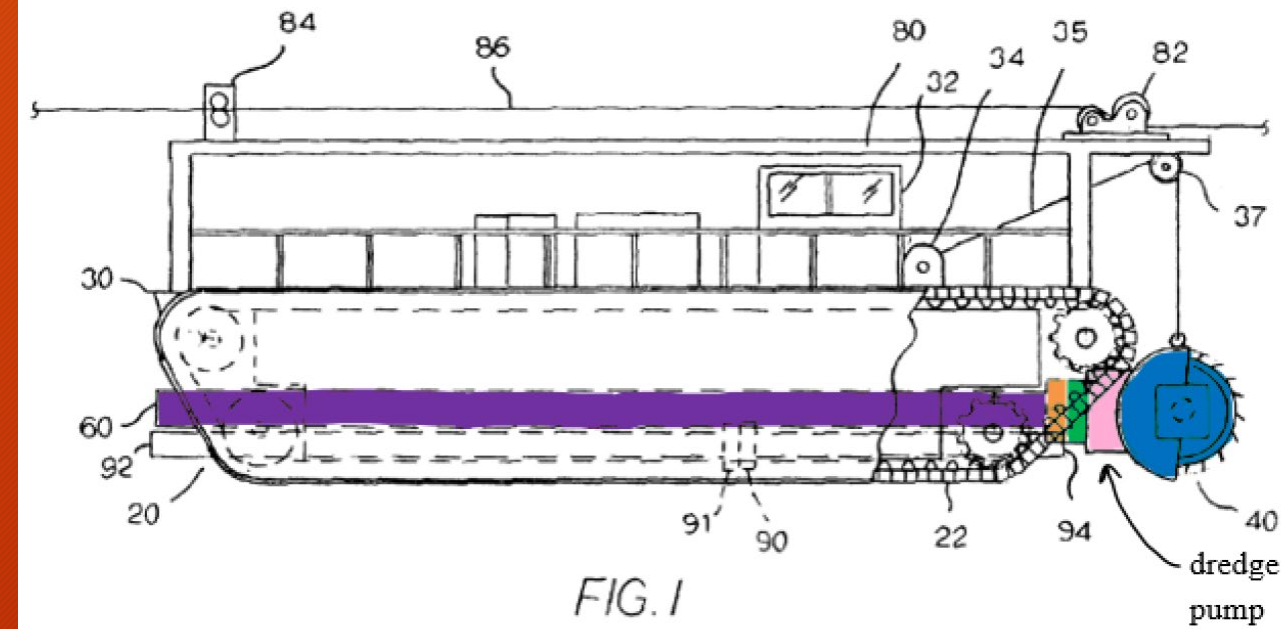
12

• Petitioner's Expert:

Patent Owner's Expert:



EX1109, ¶159.

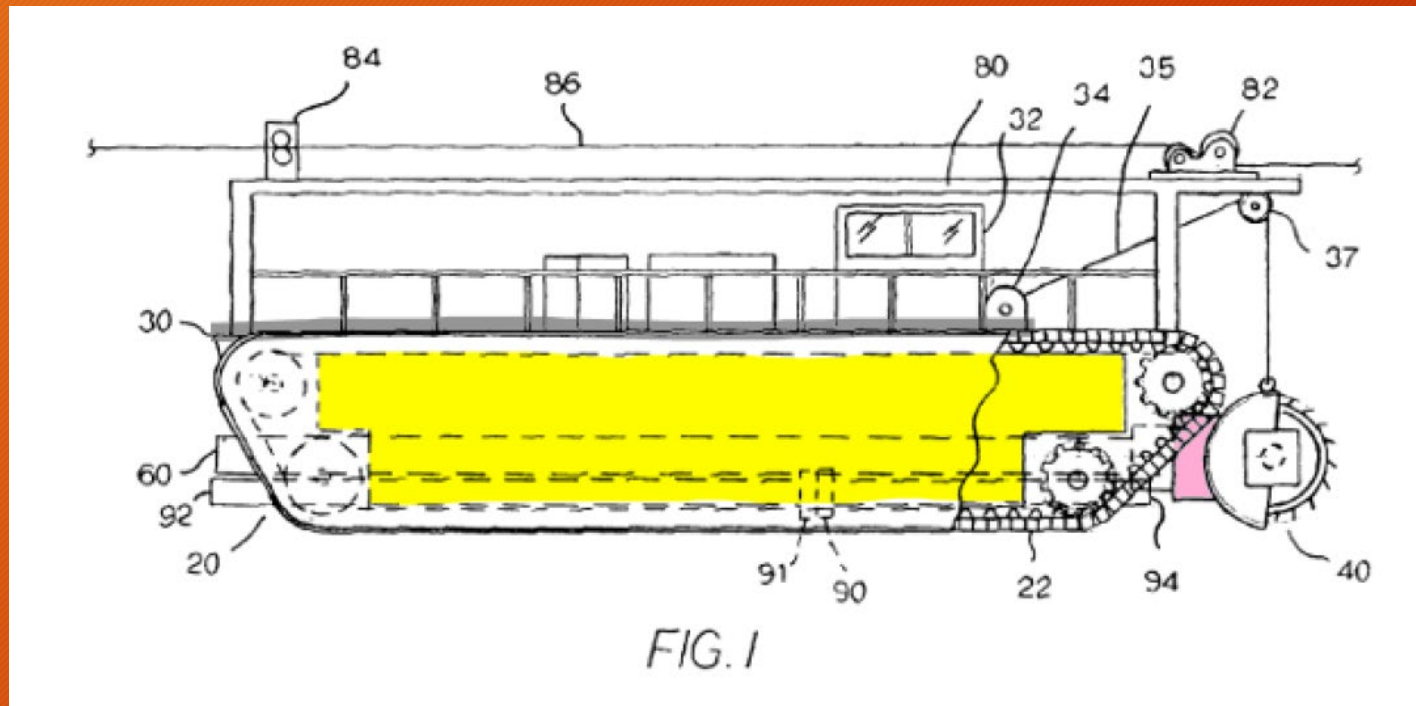


EX2099, ¶197.

GROUND 1 - Claims 22-25, 27-28, and 33-40 Are Not Rendered Obvious by Cheramie [EX1087] in Combination with Yoon [EX1011] or Carrier [EX1005]

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Patent Owner's Expert:



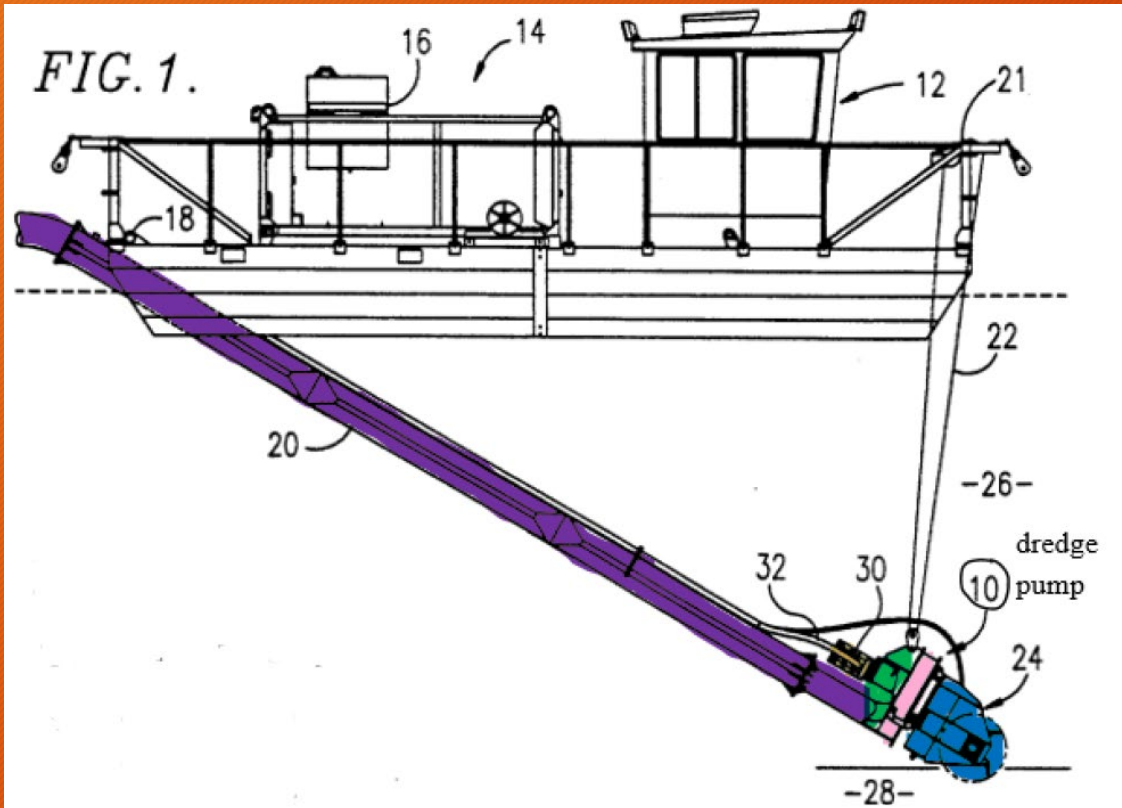
EX2099, ¶198.

DEMONSTRATIVE EXHIBIT - NOT EVIDENCE

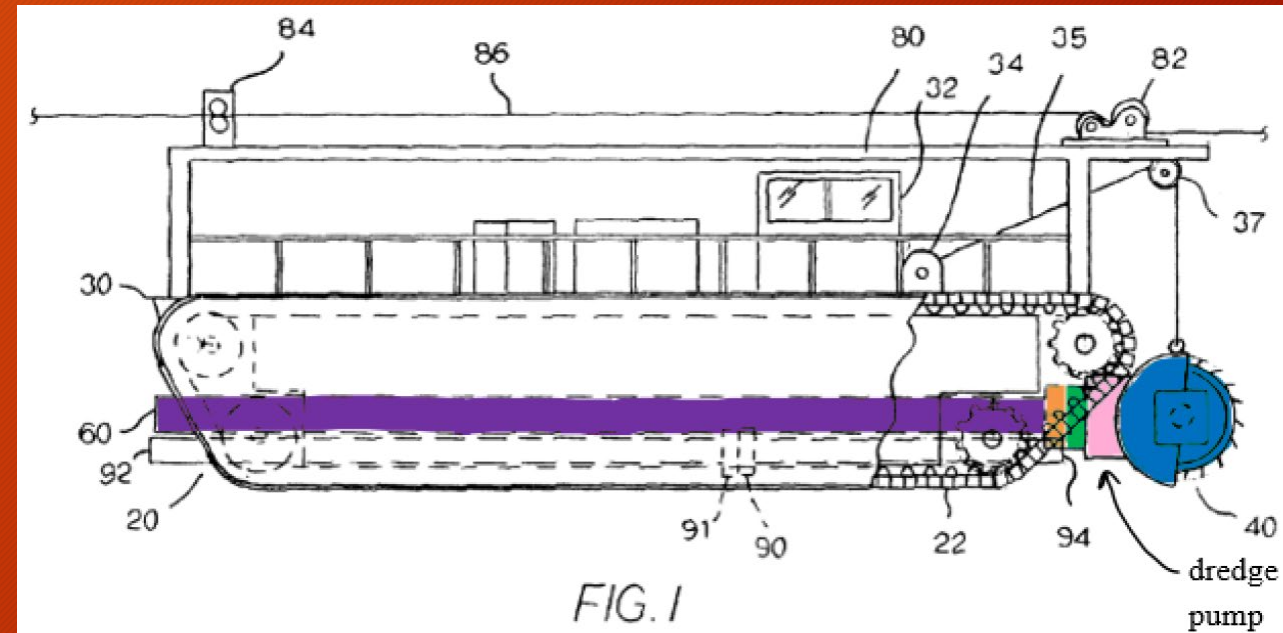
GROUND 1 - Claims 22-25, 27-28, and 33-40 Are Not
Rendered Obvious by Cheramie [EX1087] in
Combination with Yoon [EX1011] or Carrier [EX1005]

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Patent Owner's Expert:



EX2099, ¶192; EX2100.



EX2099, ¶197.

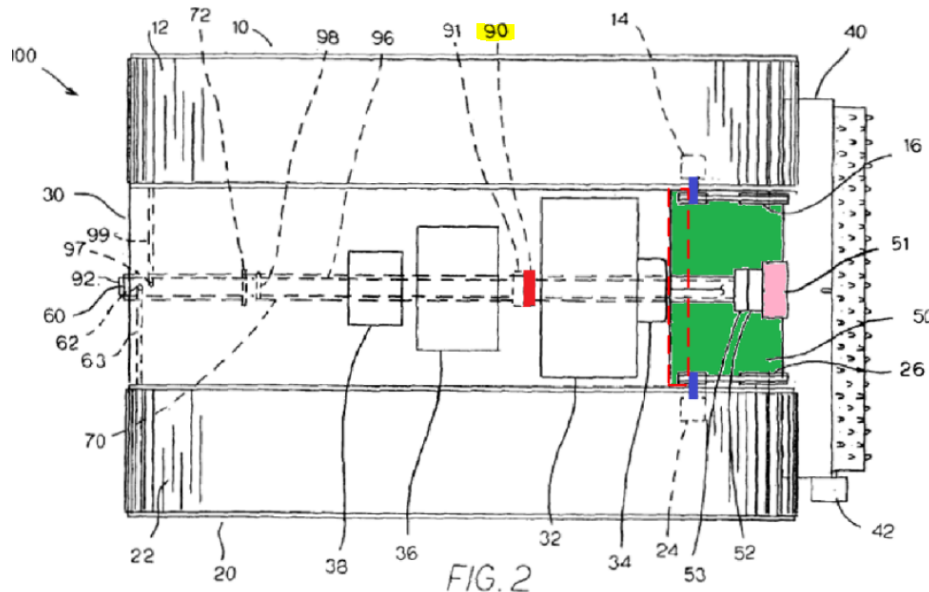
DEMONSTRATIVE EXHIBIT - NOT EVIDENCE

GROUND 1 - Claims 22-25, 27-28, and 33-40 Are Not
Rendered Obvious by Cheramie [EX1087] in
Combination with Yoon [EX1011] or Carrier [EX1005]

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Petitioner's Expert:

sustained and powerful flows of fluid. POSAs would have understood that such water pumps are capable of pumping liquid manure. See Section VII.B.



Cheramie:

In the third path, the hydraulic circuit 137 provides power to a water-pump-driving means in the form of a hydraulic drive motor 91 that drives water pump 90. Water pump 90 may be used to pump water from water intake 94 through water discharge 92 to move the amphibious dredging vehicle 100. By controlling the aim or orientation of water discharge 92, the operator may control the direction of the amphibious dredging 100 vehicle when the water pump 90 is being used to move the amphibious dredging vehicle 100 through water. The claimed water-pump-driving means does not have to be a hydraulic drive motor. Instead, the claimed water-pump-driving means may take the form of any device capable of providing sufficient motive power, including electric motors and mechanical transmissions driven either by a central powerplant or a powerplant dedicated to driving the water pump 90.

EX1087, 5:44-59.

EX1109, ¶78.

GROUND 2 and 3 - Claims 22-25, 27-28, and 33-40 Are Not Obvious based on Truxor [EX1006]/SenwaTec [EX1012] in view of Yoon [EX1011] or Carrier [EX1005]

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22. An amphibious vehicle, comprising:

a floatable vehicle body with a front, a rear, and an underside;

ground engaging propulsion structure comprising a plurality of ground engaging elements powered by a hydraulic motor;

a liquid manure pump for pumping liquid manure, the liquid manure pump including a housing and an impeller that are positioned along the underside of the floatable vehicle body between at least two of the ground engaging elements such that the housing and the impeller are rearward of the front of the vehicle body and forward of the rear of the floatable vehicle body and such that the impeller is immersed in and configured to pump the liquid manure when the vehicle is floating;

a power source connected to a hydraulic pump, the power source configured to provide power to both the ground engaging propulsion structure and the liquid manure pump; and;

a wireless remote control configured to enable an operator who is remote from the vehicle to: (1) control the ground engaging propulsion structure; (2) control a flow of liquid manure from the liquid manure pump; (3) control at least one of the speed and direction of the vehicle when the vehicle is ground engaging; and (4) control at least one of the speed and direction of the vehicle when the vehicle is floating.

27. The vehicle of claim 23, wherein the vehicle further comprises a nozzle at the end of the conduit, wherein the ground engaging propulsion structure comprises a front set of ground engaging wheels that are rotatably attached to a front set of spindles and a rear set of ground engaging wheels that are rotatably attached to a rear set of spindles, and wherein the liquid manure pump is positioned rearward of the front set of spindles and forward of the rear set of spindles.

GROUND 2 and 3 - Claims 1-7 and 12-19 Are Not Obvious based on Truxor [EX1006]/SenwaTec [EX1012] in view of Yoon [EX1011] or Carrier [EX1005]

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Truxor:



EX1006, 10.

SenwaTec:



EX1012, 2.

GROUND 4 - Claims 22-42 Are Not Obvious based on Puck [EX1014] in view of Bryham [EX1015] and Manure Manager [EX1088]

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22. An amphibious vehicle, comprising:

a floatable vehicle body with a front, a rear, and an underside;

ground engaging propulsion structure comprising a plurality of ground engaging elements powered by a hydraulic motor;

a liquid manure pump for pumping liquid manure, the liquid manure pump including a housing and an impeller that are positioned along the underside of the floatable vehicle body between at least two of the ground engaging elements such that the housing and the impeller are rearward of the front of the vehicle body and forward of the rear of the floatable vehicle body and such that the impeller is immersed in and configured to pump the liquid manure when the vehicle is floating;

a power source connected to a hydraulic pump, the power source configured to provide power to both the ground engaging propulsion structure and the liquid manure pump; and,

a wireless remote control configured to enable an operator who is remote from the vehicle to: (1) control the ground engaging propulsion structure; (2) control a flow of liquid manure from the liquid manure pump; (3) control at least one of the speed and direction of the vehicle when the vehicle is ground engaging; and (4) control at least one of the speed and direction of the vehicle when the vehicle is floating.

27. The vehicle of claim 23, wherein the vehicle further comprises a nozzle at the end of the conduit, wherein the ground engaging propulsion structure comprises a front set of ground engaging wheels that are rotatably attached to a front set of spindles and a rear set of ground engaging wheels that are rotatably attached to a rear set of spindles, and wherein the liquid manure pump is positioned rearward of the front set of spindles and forward of the rear set of spindles.

GROUND 4 - Claims 22-42 Are Not Obvious based on Puck [EX1014] in view of Bryham [EX1015] and Manure Manager [EX1088]

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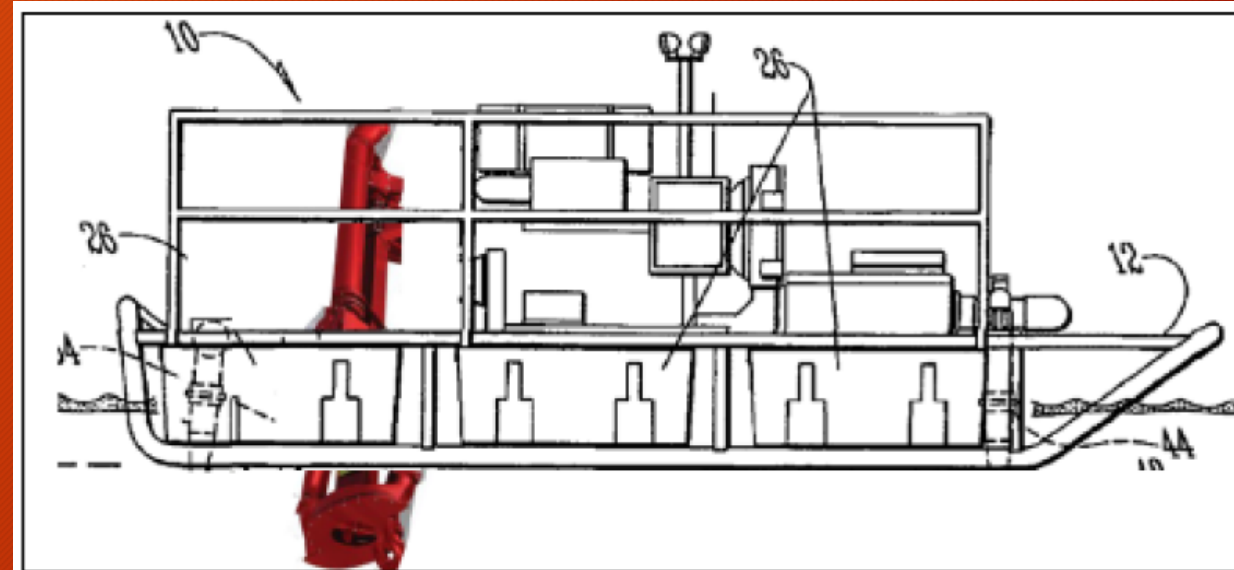


This pump features dual ported and tapered housing, as well as a tapered fan. It includes radio remote control, an oversized gear box with oil cooler, a fully enclosed drive line, a hardened and balanced drive shaft, and a modular design. Experience the fastest load times in the industry.



G-Force Vertical Pit Pump

Petitioner's Expert:



EX1109, ¶143.

EX1088, 27.

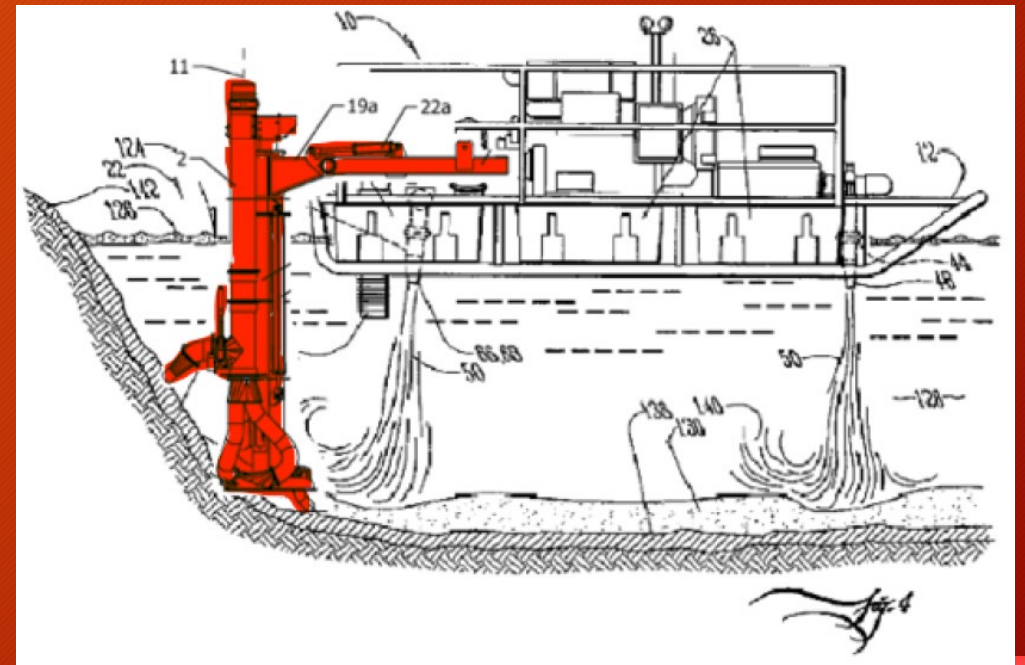
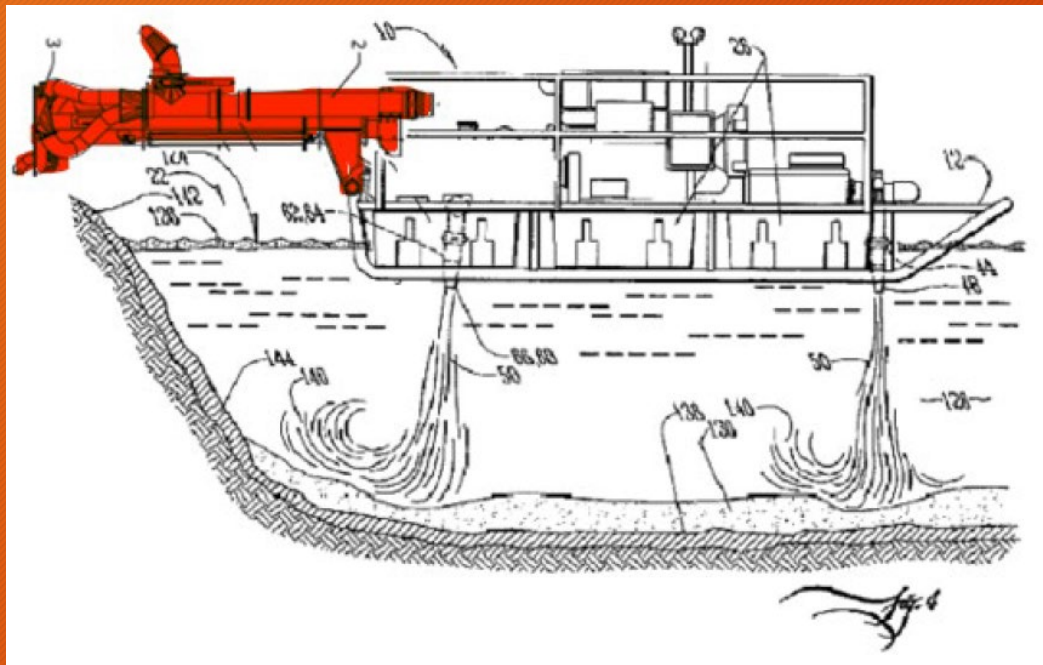
DEMONSTRATIVE EXHIBIT - NOT EVIDENCE



GROUND 4 - Claims 22-42 Are Not Obvious based on Puck [EX1014] in view of Bryham [EX1015] and Manure Manager [EX1088]

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Patent Owner's Expert:



EX2099, ¶¶ 364-365.

GROUND 4 - Claims 22-42 Are Not Obvious based on Puck [EX1014] in view of Bryham [EX1015] and Manure Manager [EX1088]

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Evidence showing what others in the industry did:



Equipment demonstrations: Manure agitation boats



Sundstrom Pit Pumping stir boat

EX1115, ¶¶ 35, 39.