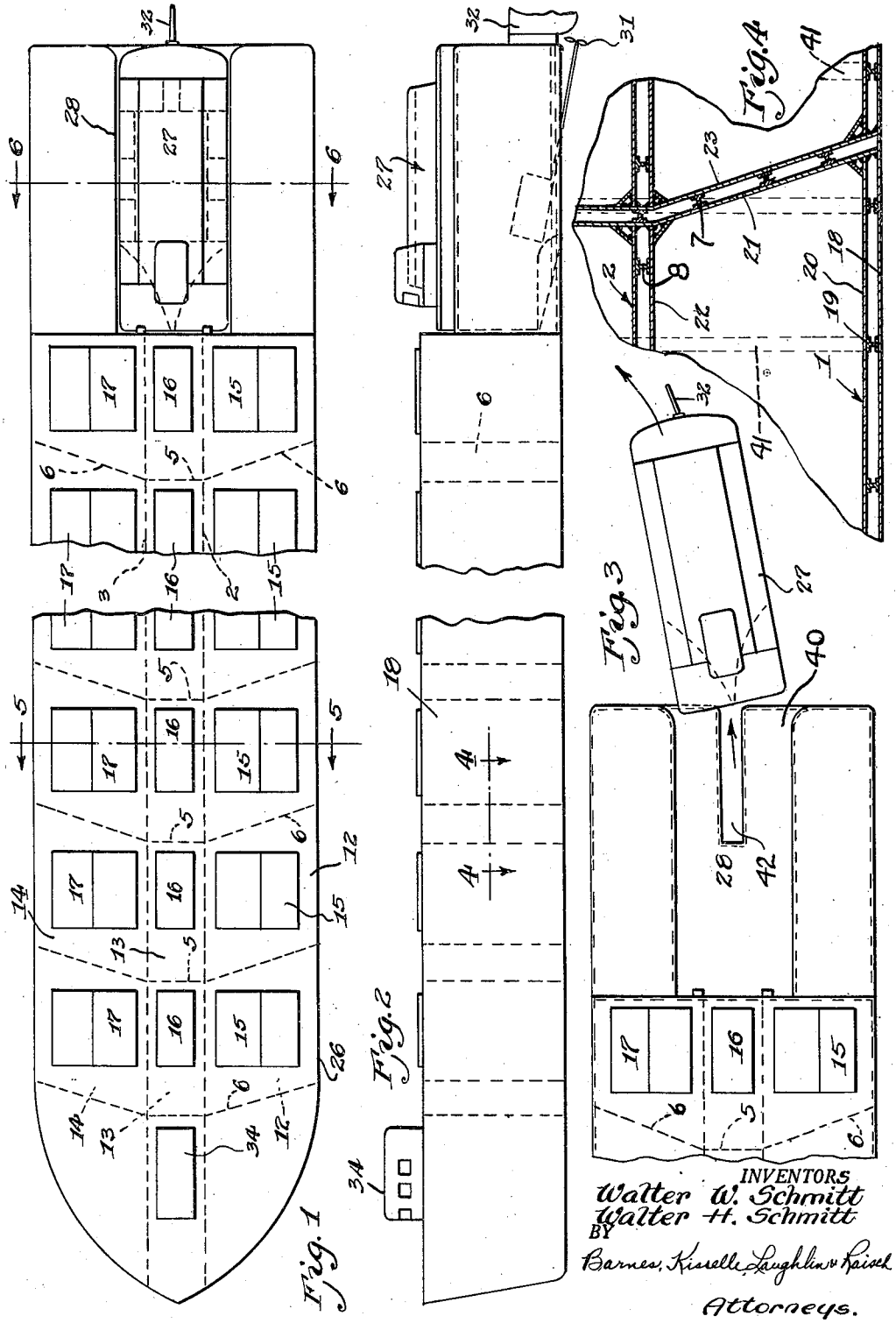
May 1, 1945. W. W. SCHMITT ET AL 2,375,139

BOAT

Filed July 16, 1942 2 Sheets-Sheet 1

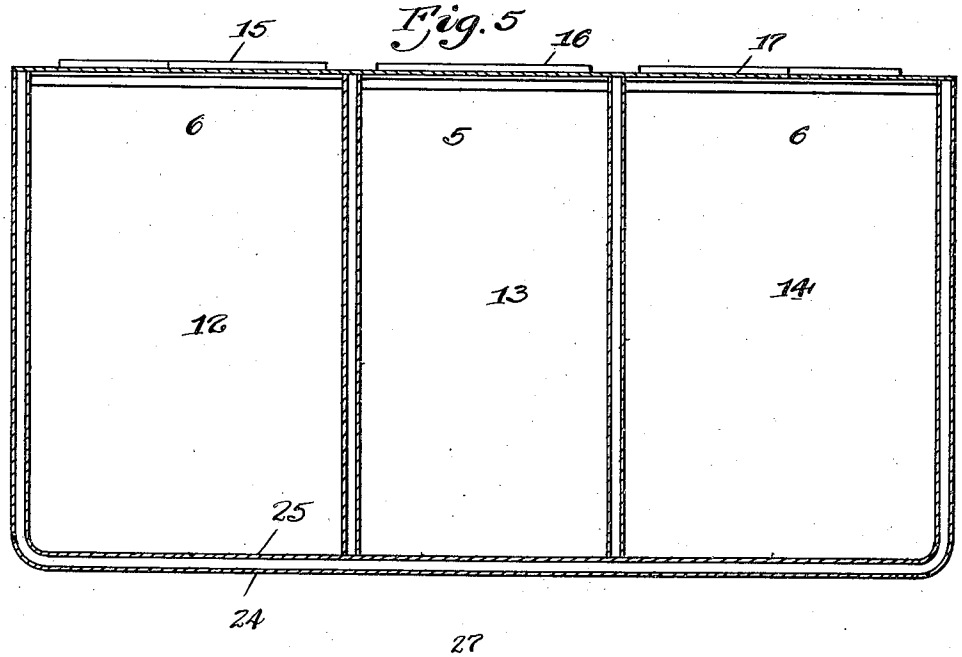


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BOAT

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Fig. 5



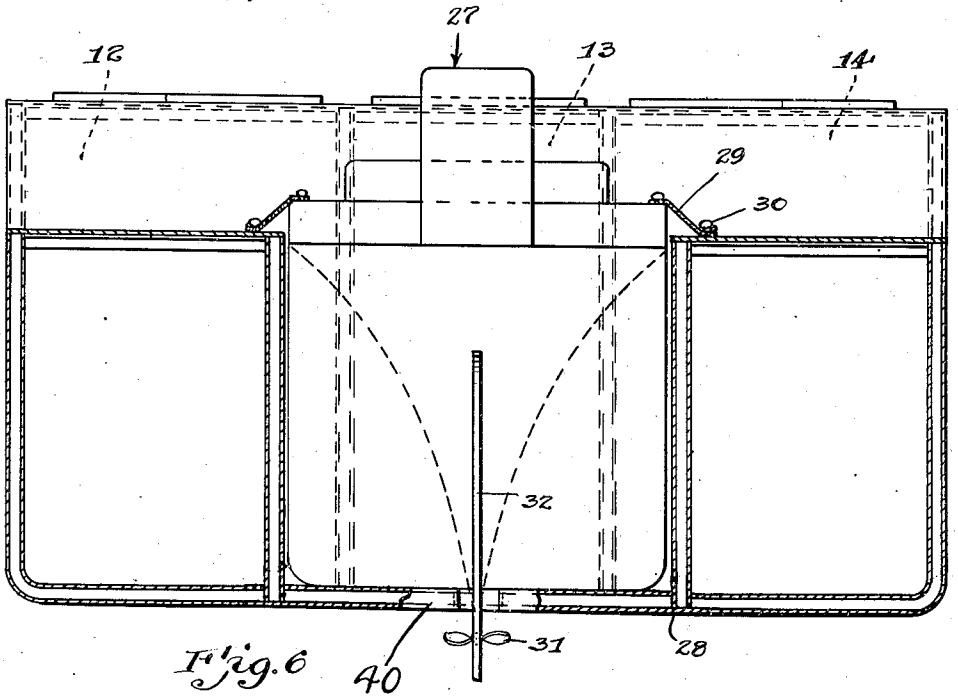


Fig. 6

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BOAT

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Application July 16, 1942, Serial No. 451,108

1 Claim. (Cl. 114—77)

This invention relates to a boat and more particularly to a boat of shallow draft motivated by a detachable power unit.

It is the object of the invention to produce a boat of simple but sturdy design, which is difficult to sink and readily repaired in the event of disaster such as torpedoing.

Another object of the invention is that of producing a power operated motor boat wherein the power unit can be saved in the event that the boat is destroyed.

This invention also contemplates a boat having a power unit which can be readily transferred from one boat to another, that is, a single power unit will alternately drive a plurality of boats so that a power plant need not be idle while the boat is being loaded and unloaded.

It is also an object of the invention to produce a boat of simple and economical design, which is easily and quickly constructed, and which has a maximum of strength and storage space. The strength of the boat is effected primarily by a herring-bone type of framework.

In the drawings:

Fig. 1 is a top plan view of the boat.

Fig. 2 is a side elevation of the boat.

Fig. 3 is a fragmentary top plan view of the stern of the boat showing the power unit detached.

Fig. 4 is a section along the line 4—4 of Fig. 2.

Fig. 5 is a section along the line 5—5 of Fig. 1.

Fig. 6 is a section along the line 6—6 of Fig. 1.

The boat is symmetrical about its longitudinal axis and is of welded sheet steel construction. All of the walls comprise a double thickness of sheet steel. The inner side walls are designated 20 and the outer side walls are designated 18. The boat is provided with two spaced longitudinal partitions 2 and 3 extending from the bow of the boat to the well 28 and a plurality of transverse, double wall partitions each comprising a center vertical partition 5 positioned between partitions 2 and 3 and vertical partitions 6 one on each side of the partition 5. Vertical partitions 6 extend from the partition 5 to the outer side walls 18 of the boat and are inclined rearwardly of the boat from the partition 5 as shown. The side walls of the boat are reinforced with a plurality of vertically positioned I beams 19. The partitions 5 and 6 are reinforced with a plurality of spaced vertically positioned I beams 7. The longitudinal partitions 2 and 3 are reinforced by a plurality of spaced vertically positioned I beams 8. The I beams in each instance are welded to the inner and outer sheet steel panels. Thus, the herring-bone framework comprises the double walled longitudinal partitions 2 and 3 and the double walled transverse partitions 5, 6 plus the vertical reinforcing I beams, all of which are welded into a unitary construction.

The boat is thus divided into a plurality of similar compartments 12 on one side of the boat by partitions 2, 6 and the side wall of the boat. A plurality of similar compartments 14 are formed on the other side of the boat by partitions 3, 6 and the other side wall of the boat. The boat is also divided into a plurality of compartments 13 by the partitions 5, 2 and 3.

The compartments 12, 13 and 14 are each provided with a hatch opening and a hatch cover 15, 16 and 17, respectively. The outer wall 18 of the boat is made of sheet steel welded to the outer vertically extending edges of the herring-bone frame members 6. The sides are reinforced by intermediate vertically extending I beams 19 welded to the outside sheet steel side 18 of the boat as well as the inside sheet steel panel 20. Each compartment 12, 13 and 14 is formed of a double wall of sheet steel reinforced by vertically extending I beams. Thus, e. g. compartment 12 is enclosed by an inside wall 20, a rear side wall 21, an inner side wall 22, and a front side wall 23, all of sheet steel welded to the vertically extending I beam frame members. The floor of the boat is also a double wall comprising an outer sheet steel floor 24 and an inner sheet steel floor 25. Thus, it will be seen that the boat comprises a plurality of water-tight, separate compartments 12, 13 and 14, any one or more of which can be perforated or destroyed and yet the boat will remain afloat. In case of damage to one of the compartments it can be readily and easily replaced.

The power unit for the main or driven boat above described, and which will be generally designated 26, comprises a smaller boat 27 which is arranged to fit in the boat well 28 provided in the stern of the main boat 26. The boat 27 is detachably secured in the boat well 28 and to the main boat 26 by the ropes 29 and brackets 30 which can be readily disconnected or the ropes 29 can be cut so that the auxiliary or power boat 27 can be detached from the main boat 26 as illustrated in Fig. 3. The auxiliary boat 27 is preferably powered by one of more internal combustion engines of the Diesel type and is provided with a propeller 31 and rudder 32 for steering the same. The power unit is preferably controlled within the auxiliary boat 27 but can also

be provided with well-known remote controls so that the operation of the power unit or auxiliary boat **27** can be controlled from the pilot house **34** on the bow of the main boat. In case the main boat **26** is torpedoed and about to sink, the auxiliary power boat **27** can be disconnected and driven away under its own power and at a much greater speed than is possible when the auxiliary boat **27** is driving the main boat **26**.

Another advantage of the detachable power unit **27** is that one power unit **27** can be used to drive two or more main boats **26**. For example, while one main boat **26** is being loaded its power unit can be detached and used to drive another loaded boat along a given water route. Thus, the power unit or auxiliary driving boat can be utilized continuously while the main boats it drives are being loaded and unloaded.

The living quarters for the crew will be built into auxiliary boat **27**. This auxiliary boat **27** provides a ready means of escape for the crew in case the main boat is torpedoed.

The boat well **28** is provided with a bottom floor **40**. The bottom **40** of the boat well **28** is formed by extending the double steel floor **24**, **25** of the boat across the well. The bottom **40** of the boat well will be beneath the surface of the water in which the main boat is floated. Therefore, the auxiliary boat **27** will be floated into the boat well above the bottom **40** and then given sufficient ballast, preferably a ballast of water, and preferably just sufficient to cause the auxiliary boat **27** to rest on the bottom **40** of the boat well. As soon as the boat **27** comes to rest on the bottom **40** of the well, the power unit **27** is secured in place by the ropes **29**. Buffers of any suitable type, either pneumatic or hydraulic, will be located between the sides of the boat well **28** and the auxiliary boat **27** to prevent marring or damaging of the auxiliary boat **27** by the walls of the boat well.

It will be noted that each of the vertical partitions **2** and **3** cooperate with the bottom **24**, **25** of the main boat and the deck to form a rigid I construction. The transverse partitions **5**, **6** also cooperate with the bottom **24**, **25** and the deck of the main boat to form a rigid I construction.

The bottom of the boat between the outer and inner sheet steel floors **24** and **25** is reinforced by I beams **41** (Fig. 4) which are welded to the floors **24** and **25** and also at their ends to the upright I beams **19**.

The bottom **40** of the boat well is provided with a slot **42** to accommodate the propeller shaft.

We claim:

In combination, a driven boat having a boat well in the stern of the same, said boat well extending forwardly along the longitudinal axis and from the rear of said driven boat and having a floor therein, and an auxiliary power operated boat substantially the same length as said well and positioned in said well upon said floor and detachably secured to the main boat for driving the same and protected by the sides of said well.

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