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SUBMARINE

Original Filed April 10, 1917

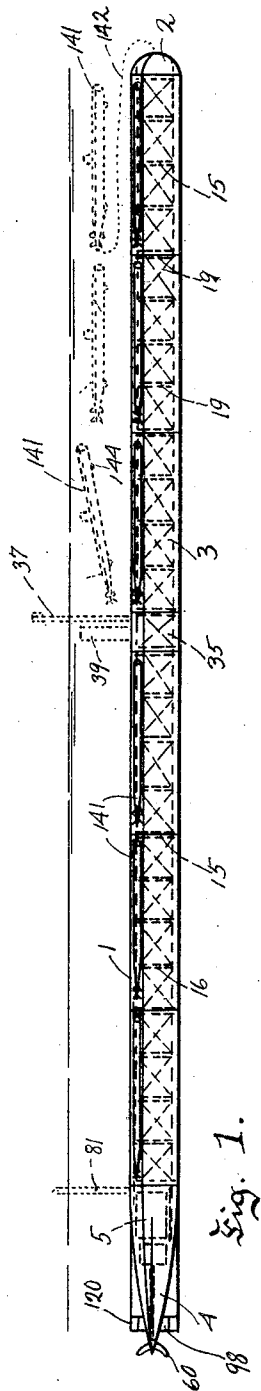
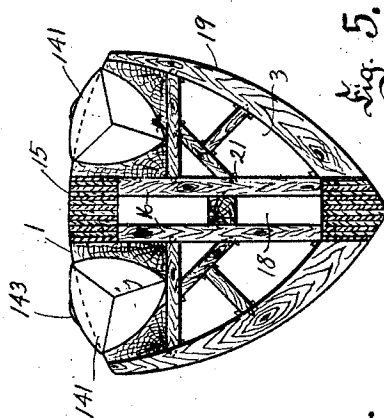
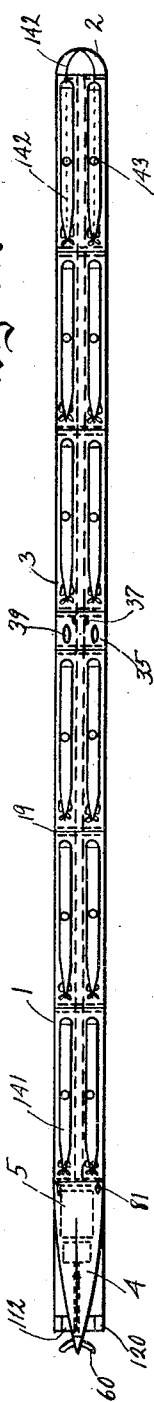


Fig. 1.



UNITED STATES PATENT OFFICE.

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SUBMARINE.

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This invention relates to submarines and more especially to that class of the same that are used for mercantile purposes.

It consists of a hull of novel shape that will travel well both under water and on the surface thereof.

Also of other means and details of construction; it being understood that various changes may be made in the form, proportion, size and detail of the various structures shown; the number and position of certain elements used; as well as the character of the motive power employed; without departing from the spirit of the invention.

Fig. 1 is a side elevation of one of the embodiments of the invention.

Fig. 2 is a plan view of Fig. 1.

Figs. 3 to 5 are cross sections of Figs. 1 and 2 on a larger scale.

Similar numerals of reference denote similar parts throughout the several views.

Referring now to the said drawings: 1 is the outside hull of the vessel and may for the sake of convenience be divided into three sections: the forward section or nose 2: the central section or cargo carrying content 3: and the after section or tail 4 holding the engine 5.

Containers 141 are shown placed on the deck of the vessel, and those latter containers may be self propelling and submergible. They are much smaller than the vessel, and may be used for carrying messages to and from land; or valuable packages to out of the way inlets or the like where the vessel 1 could not go on account of its greater draught. Or they may be used to carry mail to different points along the route of the vessel 1, instead of the vessel 1 itself stopping at all the stations; or for other purposes.

In case the vessel 1 is traveling along a dangerous route, one or more of the smaller vessels 141 can be flexibly connected to 1 as shown at 142, and dodge to the right and left and up and down in front of 1 to discover any hidden danger, as reefs, derelicts, or other dangers. The said flexible connection may be an attachment between the said vessels permitting speech to be transmitted between them; or permitting fuel to be transmitted between the same. The said attachment or connection throughout its entire length travels or moves in the same fluid medium as the said submergible or sub-

merged vessels. One vessel may travel above and parallel to the other.

The small vessels 141 preferably have sights or coning towers 143 which may be telescopic; or hinged, or otherwise fastened to the vessel.

Preferably a hole in the projection 144, fore and aft on 141 is adapted to confine the pins 145 operating in guides 146, pressed forward by the springs 147 and retracted by the cords 148 which can be used to loosen the same from the said projections; so that when the vessel 1 dives, and the cord or cords 148 are operated the vessel 141 being buoyant will rise from the deck of 1 and steam away.

Fig. 3 shows a cross section of Figs. 1 and 2 built of structural steel; Fig. 4 the same built of piping or tubing and Fig. 5 the same built of wood. It will of course be understood that this construction is only for that part of the vessel directly under the small submersible vessels but that the middle portion 35 and the rear portion 4 are built along the usual conventional lines. In case piping or tubing be employed in the construction of the vessel, the pipes or tubes can be filled with fuel or other fluid and extracted at 149; so that no space will be lost; but practically every cubic inch in the vessel will be utilized.

I claim:

1. A submergible vessel comprising a hull, and a plurality of submergible vessels carried on the deck of the same and recessed within the said deck, the said second mentioned vessels lying abreast and in tandem.

2. A submergible vessel comprising a hull, and a plurality of submergible vessels carried on the deck of the same and recessed within the said deck, the said second mentioned vessels lying abreast and in tandem thereon, and means to release the said second mentioned vessels by the submergence of the said first mentioned vessel.

3. A submergible vessel comprising a hull, a plurality of submergible vessels carried on the deck of the same and recessed within the top portion of the said first mentioned vessel lying abreast and in tandem thereon, and means to release the said second mentioned vessels by the submergence of the said first mentioned vessel.

4. A submergible vessel comprising a hull, and a plurality of secondary submergible vessels carried on the deck of the same and

- recessed within the said deck, the said secondary vessels lying abreast and in tandem, and one of the same being flexibly attached to the said first mentioned vessel, both of the said vessels being provided with suitable propelling and guiding mechanism above water, and both of the same being entirely submergible and provided with suitable underwater power and sight.
5. A submergible vessel comprising a hull divided into a plurality of watertight compartments, and a plurality of recessed portions in the deck of the same for the purpose of carrying a plurality of secondary submergible vessels, both of the said vessels being provided with suitable propelling and guiding mechanism above water, and both of the same being entirely submergible and provided with suitable underwater power and sight, said recessed portions lying abreast and in tandem.
6. A submergible vessel comprising a hull divided into a plurality of watertight compartments, an observation compartment amidships, a power compartment aft, and a plurality of recessed portions in the deck of the hull for the purpose of carrying a plurality of secondary submergible vessels, both of the said vessels being provided with suitable propelling and guiding mechanism above water, and both of the same being entirely submergible and provided with suitable underwater power and sight, said recessed portions lying abreast and in tandem.

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