J. W. CHURCH.

MEANS FOR RECOVERING STRANDED SHIPS.

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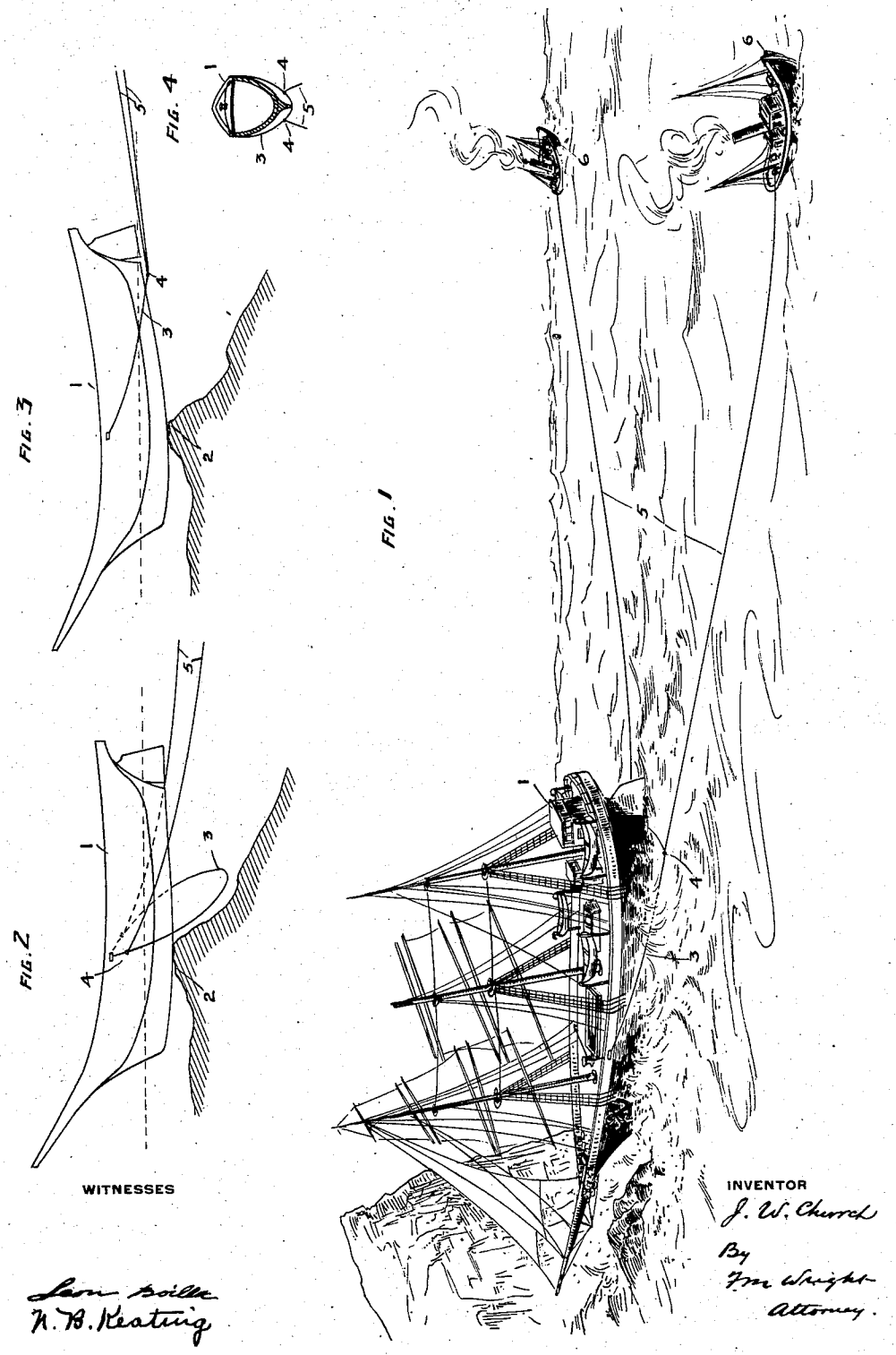
1,022,771. Patented Apr. 9, 1912.



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MEANS FOR RECOVERING STRANDED SHIPS.

1,022,771. Specification of Letters Patent. Patented Apr. 9, 1912.

Application filed March 20, 1911. Serial No. 615,590.

To all whom it may concern:

Be it known that I, JOSEPH W. CHURCH, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented new and useful Improvements in Means for Recovering Stranded Ships, of which the following is a specification.

The object of the present invention is to provide an improved means of recovering a ship which is stranded or has struck a submerged rock.

In the accompanying drawing, Figure 1 is a perspective view of my apparatus in use; Figs. 2 and 3 are diagrammatic views of the same in different positions; Fig. 4 is a sectional view of the same.

Referring to the drawings, 1 indicates a ship which has struck a submerged rock as shown at 2 in Figs. 2 and 3.

In endeavoring to pull a ship from off a rock or bottom by means of tugs, it has heretofore been the practice to secure the cables for so drawing off the ship to the upper part of the ship. Consequently, the strain exerted by the tugs, and communicated by the cables to the ship, has been in a downward direction, tending to pull the ship still more firmly upon the rock or bottom of the sea. This is believed to be the reason for the general failure of attempts to draw off ships which have struck a rock or bottom. My improved apparatus is intended to remedy this defect.

In my apparatus I provide a loop 3 of one or more strands of a cable, which is passed over that end of the ship which is in the direction toward which it is pulled off the rock, in the present instance, the stern. Said loop is then carried forward so that its ends can be secured to the upper portion of the ship preferably near the other end thereof, in the present instance, the bow. Suitable hooks or links 4 are then passed around the upper portions of the sides of said loop, said hooks being attached to cables 5, the other ends of which are attached to tugs 6. On the tugs being set in motion in the proper direction, said hooks or links slide down the sides of said loop and the loop assumes the position shown in Fig. 3, in which the central portion thereof passes in close proximity to the bottom or keel of the vessel. Care must be taken that the length of the loop is such, in proportion to the length of the vessel and the points of attachment thereto, that the bottom portion of the loop cannot pass over the stern post. It will be seen that, with this arrangement, the strains exerted by the tugs, and transmitted by the cables, tend to lift the ship from off the rock instead of to depress it thereon, thus greatly increasing the chance of saving the ship from total wreckage.

I claim:—

1. In combination with a ship, a loop of a cable, the ends of which are secured to the upper portion of the ship, and the middle of which passes below the keel of the ship, cables slidably connected to said loop, and tugs connected to said latter cables, substantially as described.

2. In combination with a ship, tugs, a loop of a cable, the ends of which are secured to the upper portion of the ship, and the middle of which passes below the keel of the ship, and cables each connected at one end to one of said tugs and at the other end engaging said loop at a point near the bottom of the ship to transmit the strain from the tugs thereto.

3. In combination with a ship, tugs, cables from said tugs to said ship, and means for securing the ends of the cables, comprising a loop extending beneath the ship, the ends of said loop being attached to the upper portion of the ship, and devices attached to the ends of the cable and slidable upon said loop, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOSEPH W. CHURCH.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."