

No. 647,774.

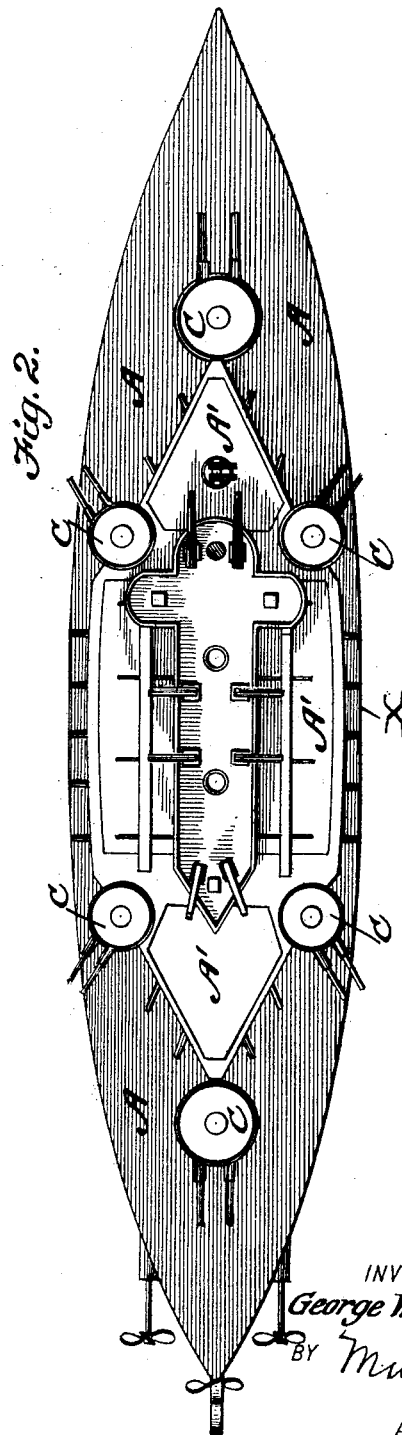
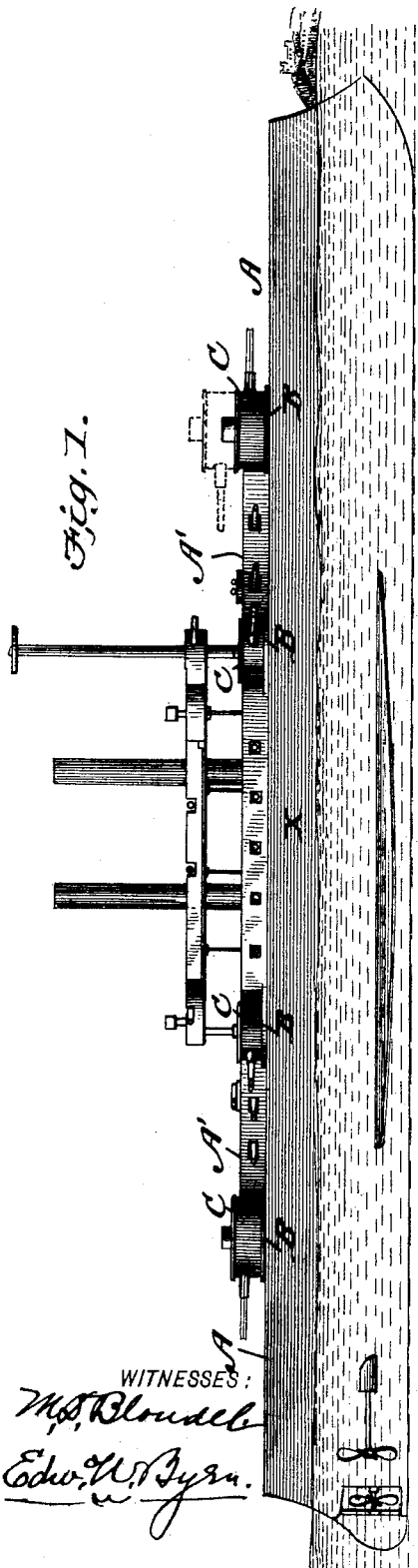
G. W. VAN HOOSE.
WAR SHIP.

Patented Apr. 17, 1900.

(Application filed Jan. 3, 1900.)

(No Model.)

2 Sheets—Sheet 1.



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2 Sheets—Sheet 2.

Fig. 3.

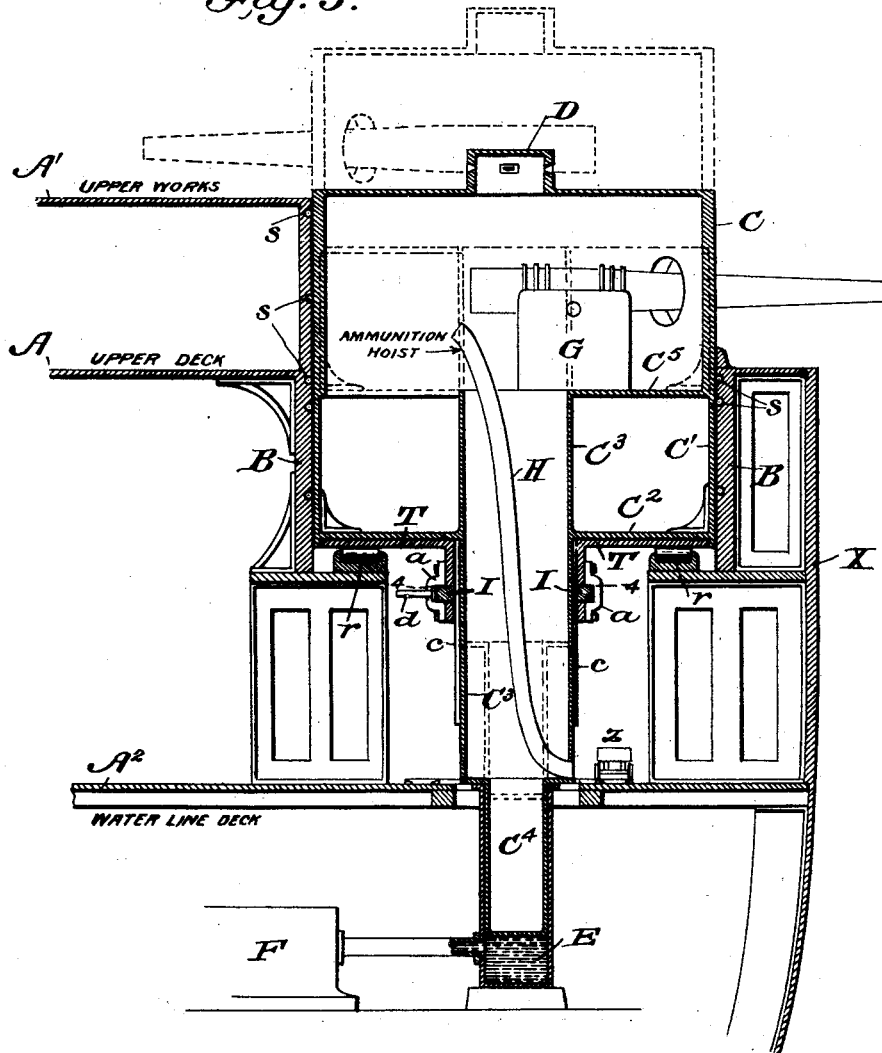
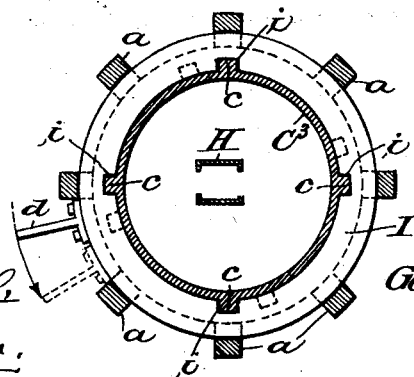


Fig. 4.



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GEORGE W. VAN HOOSE, OF TUSCALOOSA, ALABAMA.

WAR-SHIP.

SPECIFICATION forming part of Letters Patent No. 647,774, dated April 17, 1900.

Application filed January 3, 1900. Serial No. 255. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. VAN HOOSE, of Tuscaloosa, in the county of Tuscaloosa and State of Alabama, have invented a new and useful Improvement in War-Ships, of which the following is a specification.

In modern naval warfare the success of the battle is to be determined, other things being equal, by the amount of metal which the ship is capable of hurling at the enemy. One element of weakness in the modern war-ship is to be found in the fact that in engaging an enemy upon one side a large proportion of the guns of the main battery on the other side must necessarily remain inactive, which greatly subtracts from the total capacity of the said main battery. It is obvious that if the guns of the main battery on both sides of the ship were so arranged that all could be concentrated upon an enemy on one side it would add greatly to the efficiency of the war-ship and, other things being equal, would determine the tide of battle.

The object of my invention is to provide a war-ship that will permit this result to be attained; and to that end it consists in such construction and arrangement of rising-and-falling and rotating turrets as will permit them to have two planes of fire, the lower plane being the normal position when the guns are trained away from the center of the ship and the upper plane of fire being toward and across the center of the ship and above the upper works, as will be hereinafter more fully described.

Figure 1 is a side elevation of my war-ship. Fig. 2 is a plan view thereof. Fig. 3 is an enlarged cross-section through one of the barbettes and turrets of the main battery, and Fig. 4 is a cross-section on line 4 4 of Fig. 3.

In the drawings, X represents the hull of the ship. A is the upper deck, A' the upper works above the upper deck, and A² the water-line deck below the upper deck. These are all to be constructed in the usual approved way and are suitably protected by armor at all vulnerable points.

B are the barbettes, which at the outboard side extend up to and a little above the upper deck and on the inboard side extend up to the top of the upper works. These barbettes are suitably supported and braced in the man-

ner shown or in any other way acceptable to naval constructors.

The turret is made two-storied and of unusual height. (See Fig. 3.) Its upper portion C, which projects above the upper deck A, is heavily armored, while its lower portion C', which is never exposed to projectiles, is made much lighter. In the center of the lower portion of the turret is arranged a large and rigidly-attached tube C², projecting above the lower floor C² of the turret and extending to and supporting the gun-floor C³ of the upper story. This tube C³ extends also below the bottom of the turret and is connected at its lower end to plunger C⁴, which plays in a hydraulic cylinder E, which is supplied with water from a pump F and which constitutes the hydraulic lift of the turret, which lift is of any well-known or approved construction and need not be further described. The upper portion of the turret has the usual conning-tower D and carries the gun G, here crudely mounted, but which in practice is to be mounted and adjusted in the approved style of modern war-ships. A tube H, forming part of an ammunition-hoist, leads from the lower deck to the gun. The turret when in its lowest position rests with its floor C² upon a turn-table T, mounted on rollers *r*. This turn-table has fixed to its lower side in central position a downwardly-projecting flange embracing the tube C³ of the turret and has hangers or brackets *a* extending at intervals around the same and inclosing a swiveling collar I. This collar is made very stout and strong and has four or more notches *i* (see Fig. 4) in its inner periphery, which are adapted to receive vertical ribs or flanges *c*, arranged longitudinally on the outer side of the tube C³. When the collar is turned, its notches *i*, embracing the ribs *c*, cause the tube C³, with turret and turn-table, to rotate together to any desired extent. While allowing the turret and turn-table to be thus turned, the collar allows the turret and tubes C³ C⁴ to be elevated by the forcing of water into the chamber E, the ribs *c* rising freely through the notches *i* in the collar. When, however, the turret and tube C³ reach their highest adjustment, the lower ends of the ribs *c* pass above the collar I, and the latter may then by a swiveling motion be

turned, as shown in dotted lines, Fig. 4, to cause its notches *i* to pass away from under the ribs *c*, and then the ribs rest upon the collar *I* and the weight of the turret is taken
 5 off of the water-cylinder below. The turret may now be rotated by its turn-table through a semicircle, so that the guns instead of pointing outboard in the lower plane, as shown in full lines, point inboard and above the level
 10 of the upper works, as shown in dotted lines, so as to concentrate their fire, with that of the guns on the other side of the ship, on an enemy on that side. It will thus be seen that the guns have two planes of fire. When in the
 15 lower plane and pointing outboard, only the upper and more heavily armored part of the turret projects above the barbettes, and when pointing inboard the lower and lighter portion of the turret is protected by the upper
 20 works of the ship.

I have not shown any means for rotating the turn-table, as this forms no part of my invention. The heavy chain and sprocket-wheel already in use for this purpose may be
 25 employed, or any other system, such as gearing, may be used. For giving the slight turn to the swiveling collar *I* necessary to bring its notches into or out of alinement with the vertical ribs *c* a rigid arm *d* may be made fast
 30 to the collar and motion imparted through the same by any well-known gearing.

To facilitate the rising and falling and turning of the turret within the barrette, ball-bearings *s* are arranged within suitable
 35 fixed sockets in the inner face of the barrette.

The two main turrets—fore and aft—are intended to have a rise of some six feet, while the turrets on the side, which contain the
 40 eight or six inch guns, are to have a rise of about five feet.

In making use of my turret, with its double plane of fire, I would have it understood that in some situations it might be useful in
 45 coast defenses, and my invention comprehends that application of it.

In my invention the ammunition-tube *H* receives the charge through an opening in the side of the tube *C*³, between the turn-
 50 table *T* and the water-line deck *A*². The vertical space between these two points is great enough, as shown in Fig. 3, to allow access to be had to the ammunition-tube from the space between the deck *A*² and turn-table
 55 when the turret is in its upper, as well as its lower, position. A car *z* runs on a circular track on deck *A*² around the tube *C*³ to deliver ammunition to the tube, and this car may have elevating devices for the charge.

60 Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A war-ship having a main deck with centrally-arranged upper works rising above the
 65 level of the main deck, combined with a ro-

tary turret having its guns when in normal position below the upper works and above the main decks, said turret being adjustable vertically to bring the plane of fire of the guns
 70 above the upper works and across the decks substantially as and for the purpose described.

2. A war-ship having a main deck with centrally-arranged upper works rising above the level of the main deck, and a rotary turret
 75 having its upper exposed portion heavily armored, and its lower portion more lightly constructed, and having a range of vertical adjustment adapted to give two planes of fire, one outboard from the lower position, and the other across decks from the higher position
 80 substantially as and for the purpose described.

3. In a war-ship the combination with a turret having its upper portion heavily armored and its lower portion lightly armored; of a
 85 barrette covering only the lower portion of the turret on the outboard side and extending the full height of the turret on the inboard side substantially as described.

4. The combination of a rising-and-falling
 90 and rotating turret having a central tube or cylinder with rigid vertical and parallel ribs on its exterior, a turn-table supporting the turret and having a swiveling collar with notches in its inner surface to receive the
 95 said ribs, said collar having a rotary adjustment when the turret is in its highest position so as to lock under the ribs and support the turret as described.

5. In a war-ship the barrette having ball-
 100 bearings arranged in its inner faces, combined with a rising-and-falling and rotating turret adapted to move vertically and horizontally over said ball-bearings, and means
 105 for adjusting the turret substantially as described.

6. The combination with the barrette and the turret having a central tube with external ribs; of a subjacent turn-table supporting
 110 the turret and having a central downwardly-projecting flange embracing the tube of the turret and carrying a series of hangers or bearings, containing a swiveling collar with internal notches substantially as and for the
 115 purpose described.

7. In a war-ship a two-storied turret the upper portion being heavily armored and having a supporting-floor for the guns, and the lower portion being lightly constructed and
 120 having a floor with a central tube rising there-through and connecting with and supporting the gun-floor substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE W. VAN HOOSE.

Witnesses:

J. J. MAYFIELD,
 S. D. MCGEE.