

(No Model.)

A. McDOUGALL.
STEAM FREIGHT AND PASSENGER VESSEL.

No. 529,295.

Patented Nov. 13, 1894.

Fig. 2.

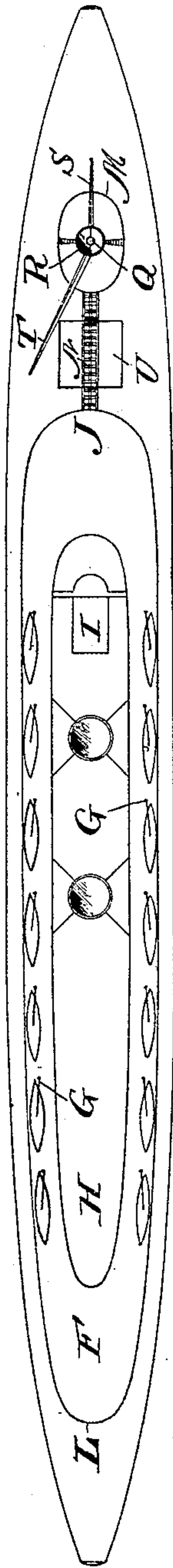
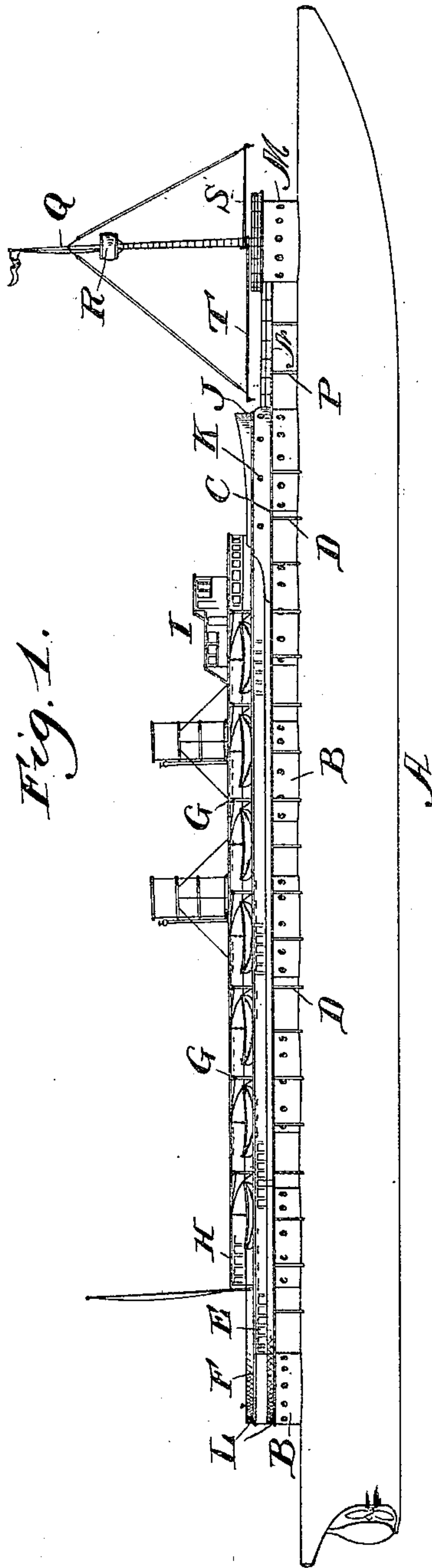


Fig. 1.



Witnesses
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UNITED STATES PATENT OFFICE.

ALEXANDER McDOUGALL, OF DULUTH, MINNESOTA, ASSIGNOR TO THE AMERICAN STEEL BARGE COMPANY, OF NEW YORK, N. Y., AND WEST SUPERIOR, WISCONSIN.

STEAM FREIGHT AND PASSENGER VESSEL.

SPECIFICATION forming part of Letters Patent No. 529,295, dated November 13, 1894.

Application filed May 29, 1893. Serial No. 475,925. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER McDOUGALL, a citizen of the United States, residing at Duluth, in the county of St. Louis and State of Minnesota, have invented certain new and useful Improvements in Steam Freight and Passenger Vessels; and I do hereby declare the following to be a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improved steam freight and passenger vessel. This vessel is designed particularly for ocean traffic and is intended for carrying passengers and valuable freight at a high rate of speed between ocean ports.

The particular features of novelty in the present boat relate to certain modifications in its construction from other vessels of my improved type which enable the vessel to fulfill its particular objects in a better way.

One essential feature in an ocean going vessel for passenger service, which my improvement possesses, is that it should be so constructed as not to be seriously retarded by heavy head waves and that it should also be built in such a way that the cabins will be effectively protected from being damaged or destroyed by such waves. To accomplish these ends I modify my improved type of vessel in the following respects: I make use of a hull of substantially the same type as before, having a curved deck, straight sides, slightly crowned bottom, skeaged stern, and spoon-shaped or wedge bow. Mounted above this deck, as heretofore, is a long and comfortable cabin for the accommodation of passengers, which cabin is carried on large supporting turrets at the center and heavy metallic pipes at the sides and between the turrets. This cabin, or cabins, is sustained upon a heavy metallic deck, rigidly secured to the turrets so as to tend to brace and strengthen the boat longitudinally. In practice this supporting deck is not so long as heretofore and its forward end extends back some distance from the bow of the boat, approximately about one-fourth the length of the vessel, more or less. The

cabins which are mounted upon this deck are placed some distance back from its forward end so as to make a convenient promenade for the passengers, in front of the cabins, both on the middle deck and on the hurricane deck, which is above the same.

The front part of the cabins is protected by a heavy metal bulwark which extends up from the middle deck. Light is admitted to the space between the middle and hurricane deck by means of bull's eyes in the bulwark. In front of this bulwark, near the bow of the boat, is a heavy turret made considerably higher than the other turrets which carry the cabins, and which should be of very rigid construction. This fore turret carries on its top or within the same, a capstan and windlass for handling the anchor chains and hawsers of the vessel. Extending from this fore turret back to the middle deck is a heavy platform, made preferably of iron bars laid on edge to form a grating so as to shed off any water which may flow thereon. This platform may be reached from the lower deck by means of a door cut in the bulwark and suitably packed to prevent leakage. The said platform should be supported at suitable points by heavy pipes or in any other way. Extending up from the fore turret is a heavy hollow mast carrying a crow's nest at its upper end for the look-out, and this mast also carries the head light of the vessel. The said mast may carry a sail when desired, but it is used principally for carrying a derrick arm for loading the vessel with its freight.

The particular features of novelty can be better understood by referring to the accompanying drawings, forming a part of this specification, and in which—

Figure 1 represents a side elevation of my improved vessel; and Fig. 2 a top view looking down upon the vessel.

In both of the above views corresponding parts are designated by the same letters of reference.

A represents the hull constructed as heretofore and having the same general shape and construction as in my other vessels.

In Fig. 1, I have shown a spoon-shaped

bow, but any other form of bow may be used with my improved vessel.

B are heavy turrets which extend up from the main deck of the vessel, said main deck being the top of the hull, and these turrets are in a line with each other and are arranged at suitable distances apart. The said turrets B carry a heavy middle deck C made of metal or wood and which is suitably supported at the sides and at the center between the turrets by heavy supporting pipes D. The said middle deck C carries a line of cabins E of any suitable construction and arrangement. Directly above these cabins E, is a hurricane deck F, which is supported by the said cabins and by the said pipes D which extend up through said hurricane deck. The said pipes D which extend up above the hurricane deck, carry davits G, for the life boats of the vessel.

Mounted above and upon the hurricane deck F are the cabins H and above these cabins H at the front part of the same is the pilot house I of the boat. The forward turret of the series of the supporting turrets B, is mounted farther back from the bow than heretofore, at a point about one-fourth of the length of the vessel therefrom, and the cabins E and H are mounted upon the middle and hurricane decks, at a point some distance from the extreme forward part of each of said decks. J is the bulwark before referred to. This bulwark is made of heavy plating suitably supported and braced at the back, and extends up from the middle deck C to a point a short distance above the hurricane deck F, so as to tend to further support the hurricane deck at its forward end. The said bulwark J between the middle deck C and the hurricane deck F is preferably bulged slightly outward, as shown, so as to better shed water, and above the hurricane deck it extends up vertically, being highest at its center and sloping gradually down toward the hurricane deck at the sides.

K, K, are bull's eyes in the bulwark between the middle deck and the hurricane deck for lighting the front part of the middle deck.

The forward part of the middle deck C and of the hurricane deck F in front of the cabins, constitute convenient promenades for the passengers, which promenades will be effectively protected from water by means of the said bulwark.

L, L, are the usual railings for the decks C and F.

M is the fore turret which extends up from the main deck a short distance from the bow. The said turret is of very heavy construction and is somewhat higher than the turrets B for the purpose to be hereinafter explained. The said fore turret M is decked over on its top and carries a capstan and windlass for carrying the anchor chains and hawsers of the vessel.

N is a platform which extends back from the fore turret M to the middle deck, being reached from the said middle deck through a

door cut in the bulwark J, or in any other way. The platform N is provided on each side with a railing to prevent the officers and crew from being washed overboard in passing along the same, in heavy weather, and is to be supported at suitable points by heavy pipes P, or in any other convenient way. The platform N may be conveniently made of iron bars set on edge with small spaces between the bars to enable any water to pass down through the same, or it may be made of heavy metal grating or in any other way so as to shed water quickly and give longitudinal strength. The platform N may be a permanent fixture to the vessel, or it may be removable, so as to better facilitate the loading of the vessel.

Q is a heavy metal mast which extends up through the fore turret M, being braced at its lower end either to the main deck, or it may extend down through the hull and be supported by the keelson or at any intermediate point. The said mast Q carries at its upper end a crow's nest R, which may be reached either from the inside of the mast or by means of ratlines on the rigging or shrouds extending up from the fore turret M. In heavy weather the lookout of the vessel may be stationed in this crow's nest R, and in front of or above the same may be placed the headlight of the boat.

S is a short derrick arm which extends out over the fore-turret M and which can be conveniently used for handling the anchors of the boat and for other purposes. T is another and longer derrick arm carried by the said mast Q which extends out toward the rear of the fore-turret M and which can be conveniently used in the loading of the vessel, either with high grade freight, or with the trunks and baggage of the passengers.

U is a large hatch way cut in the deck of the vessel directly under the platform N and through which baggage and freight are lowered.

Instead of making use of a large hatch way U, as I have just mentioned, two smaller hatch ways may be used at each side of the platform N, and in either case the hatchway or hatchways should be covered by hatch plates bolted firmly to the main deck and packed underneath to prevent leakage. It will be observed that these hatch plates are approximately flush with the main deck, so as to enable any water to flow uninterruptedly off the same, thereby not retarding the speed of the vessel in any way, or weakening the main deck of the same.

The particular advantages of a vessel of this type for the purpose mentioned will be readily understood. In heavy weather the hatch way U will be closed and also any hatch ways which may be used in the fore turret M and on the main deck.

It will be observed that when heavy seas are encountered, the waves will break over the bow of the boat and will strike the fore turret M which is made higher than the other

turrets, being divided by the said fore turret, so as to readily flow off to the side of the boat without injury to the turrets B or to the cabins. Should the waves which the vessel encounters be very high, so as to break entirely over the fore-turret M, the main portion of the waves will be divided thereby, as just described, and the combing or crest will pass over the said fore turret, so as to encounter the bulwark J and the turrets B, thereby dividing the combing or crest, which will also pass to either side without striking or injuring the cabins in any way. It will therefore be seen that the main portion or body of the head waves will be resisted by the fore turret M and be divided and forced to both sides, and that the crest or combing of the waves, which is much lighter and has less force will be met by the bulwark J, and the forward one of the turrets B.

By making the platform N so as to shed water it cannot be weakened in any way by the combing or crest which may come over upon the same. I have therefore obtained a passenger boat which has the advantage that no waves can reach the cabins of the same, or any portion of the main deck under the cabins but that all waves will be met with and deflected to both sides by the extreme bow portion of the boat, which is made very strong for that purpose.

Having now described my invention, what I claim as new therein, and desire to secure by Letters Patent, is as follows:

1. An improved steam freight and passenger vessel, provided with a hull, having a curved top or deck; cabins mounted above said hull on turrets; and a bulwark in front of said cabins, for breaking, dividing and deflecting to both sides the combings or crests of any waves which may strike the same, to protect the cabins from such waves, substantially as set forth.

2. An improved steam freight and passenger vessel, provided with a hull having a curved top or deck; a middle deck supported above said hull on turrets, lower cabins, carried upon and by said middle deck; a hurricane deck above said lower cabins carrying upper cabins; and a bulwark, extending up from said middle deck, to a point above said hurricane deck so as to support said hurricane deck at its forward end, and for breaking, dividing and deflecting to both sides the combings or crests of any waves which may

strike the same, to protect the cabins from such waves, substantially as set forth.

3. An improved steam freight and passenger vessel, provided with a hull having a curved top or deck; a middle deck supported above said hull on turrets, lower cabins supported upon and by said middle deck; a hurricane deck above said lower cabins carrying upper cabins; a bulwark extending up from said middle deck to a point above said hurricane deck, so as to support said hurricane deck at its forward end, and for breaking, dividing and deflecting to both sides, the combings or crests of any waves which may strike the same, to protect the cabins from such waves; and bull's eyes in said bulwark for lighting the space between said decks in front of the cabins, substantially as set forth.

4. An improved steam freight and passenger vessel, provided with a curved top or deck; cabins supported above said deck on turrets; a separate isolated turret; mounted on said curved top or deck, for breaking, dividing and deflecting to both sides any waves which may come over the bow of the vessel; and a bulwark mounted in front of said cabins for breaking, dividing and deflecting to both sides any waves which may flow over such separate turret, substantially as set forth.

5. An improved freight and passenger vessel, provided with a hull, having a curved top or deck; cabins supported above said hull on turrets, a separate isolated turret, mounted upon said curved top or deck, in front of said cabins, so as to break, divide and deflect to both sides any waves which may come over the bow of the vessel; a bulwark mounted in front of said cabins for breaking, dividing and deflecting the combings or crests of any waves which may break over said separate turret; a platform or walk, connecting said separate isolated turret with said cabins, a mast extending up from said separate turret, carrying a crow's nest for the look-out; a derrick arm, swinging from said mast, over said platform; and a hatch or hatches in said curved top or deck of the hull, beneath said platform, for the purpose mentioned, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ALEXANDER McDOUGALL.

Witnesses:

CHAS. W. LELAND,
S. GEO. STEVENS.