The Ship's Bridge

Few mere landsmen ever come to know the bridge of an ocean liner well. When your are so fortunate as to be invited to one (says a writer in 'St. Nicholas'), you are led up a narrow flight of steps from the deck to the bridge, and thence to the pilot house.

The bridge in fair weather will be found to be a very quiet retreat. At this height you no longer feel the deep throbbing of the engines, while the busy decks seem to have been left far below.

There are seldom more than two persons on duty here. One, an officer, paces quietly back and forth across the bridge; the other, a seaman, stands with his hand on the wheel intently watching the binnacle, in which is suspended the compass. No conversation is allowed, and scarcely an unnecessary word is spoken.

The bridge may be sixty feet or more in length, probably five feet or more in width, and with a considerable open space at the sides of the wheelhouse. At sea the front and sides of the bridge are likely to be built up with canvas to protect the officers from the force of the wind.

A row of telegraph signals and a series of speaking tubes are grouped at the centre; at either end is a broad, low seat.

The wheelhouse, at the centre of the bridge, is a heavy structure of polished wood. On entering it a landsman is awed by the complicated machinery on every hand. His attention is first attracted to the wheel, or wheels, for often there are two or more of them, one directly in line with the other.

The first of these is an insignificant-looking affair, perhaps a foot or so in diameter, which seems out of all proportion to the work it must accomplish. Directly in front of it stands' the ship's compass, while back of it are massed the levers which transform the slightest motion of the wheel into the force which guides the ship.

All the great steamers are steered nowadays by the aid of steam or electricity. In the old days half a dozen men at times would struggle with the wheel in high seas, and sailors have been killed by the rapid revolving of the projecting spoke handles. The modern steering gear makes it possible to guide these great ships with the slightest pressure.

The rudder, weighing many tons, is perhaps 500 feet astern, yet with a touch of the polished wheel the great 700-foot ship will swing from side to side with almost the delicacy of a compass needle. The wheel that the steersman operates merely governs the steering engine, which in turn moves the great rudder.

The work of steering a great ship, even with the aid of all this machinery, is much more delicate than one would imagine. The larger and faster the ship the greater is the difficulty.

It is not enough to hold the wheel in the same position to keep the ship on her course, for the wind and waves and the currents of the ocean tend constantly to knock the ship off her course. The great wall of steel (for the hull may be 700 feet long and 60feet high) offers a broad target for the wind and waves. If you could watch the binnacle, especially in bad weather, you would see the needle of the compass constantly shifting from side to side, which means that the great steel prow is not going forward in a perfectly straight line.

All the machinery which may be set in motion in case of danger is centred on the bridge, and so perfectly has it been arranged that the entire vessel could be controlled, if the necessity should arise, by means of a series of levers and push buttons. There are a surprising variety of barometers, thermometers, thermostats, wind and rain gauges, and other less familiar-looking instruments.

The danger of fire at sea is anticipated by a thermostat connected with a frame, like a hotel indicator. There are thermometers in every part of the ship electrically connected with this box, which are constantly on guard.

If a fire should start in any part of the great ship, the temperature would of course rise, and the fact would instantly be announced in the wheelhouse by the ringing of a bell, while a red light would flash at the same time in one of the squares of the indicator. The man at the wheel could tell at a glance the exact point of danger.

The wheelhouse is also the telephone central of the ship, and it would be only the work of a moment to have men at the point of danger.

The modern ships are divided into many different compartments by many partitions, each carrying heavy steel doors. A series of levers will be pointed out to you in the wheelhouse by which these great doors may be closed in any part of the ship at an instant's notice.

These steel compartments are so strong that in case of collision or of fire one or more of them might be filled with water, and yet the rest of the ship would be unharmed. Should a fire be discovered, an entire compartment might be flooded in a few seconds.

There is a series of squares in another indicator corresponding to every one of these steel doors throughout the ship. In case of danger it is possible to close all of these doors at the same instant by touching a single lever on the bridge. And should any door fail to close, a red light would instantly appear in one of the little squares to tell just where the trouble lay.

Still another safety device which may be watched from the bridge is the indicator connected with the submarine wireless system which gives warning of the approach of another ship. This invention, but lately added to the great ships, consists of a delicate instrument so connected with wires beneath the water that the presence of a large body of iron or steel, even at a considerable distance, is instantly recorded. There is, besides, of course, the regular wireless for sending and receiving signals over hundreds of miles of water.

The bridge is especially impressive at night, when the great ship is asleep. The wheelhouse is completely dark, except for the covered lamps in the binnacle. From time to time the captain enters the house, asks a few questions in a quiet conversational tone, perhaps gives some order.

The marvellous machinery which lines the walls stands silent guard. The bridge is quiet except for the curious singing note of the wind in the rigging and the sharp crack of the halyards against the masts, and endlessly the deep pulsing of the engines. Outside the lights at the masthead swing from side to side, marking off the roll of the ship in great arcs against the sky.

If you are so fortunate as to stay until midnight, you will see perhaps the most curious sight of the twenty-four hours, when the ship's officer changes the time. The clock which sets the time for the life of the ship is put back about an hour if the vessel be sailing west, or an hour ahead if it be pointed east, and the sleeping hundreds beneath will wake up in the morning to find their timepieces all wrong.

The helmsman's watch comes to an end when the call of the look-out from the crow's-nest announces another day. The beautiful sea cry is taken up and repeated down the longdeserted deck: 'Eight bells, and all's well.'

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