

but if so, how is it then that no one has as yet sought to remedy the evil feature again repeated in the "*Bretagne*" so at least said the "*Scientific American*" in giving a description of the new vessel.

It is at Havre, France, on the 9th Sept. next, as said before that the adjudicating jury or Committee meet to examine exhibits and award the prize or prize or such portion of the prize as may be due to the relative importance of the case in hand when M. Baillaigé hopes to show by the vouchers submitted that he is entitled to something under this head.

Case No 3 is of course the most pertinent and important — "How to save the passengers and crew if the vessel must go down."

The exponents' first idea was for a deck raft, and fastened thereto by a simple interlocking device as of a bayonet to a musket, and which on an emergency could have been quickly loosened from its moorings and ready to float off the deck with its living cargo when the vessel were going down. More than one deck raft would of course be required for a large complement of crew and passengers, and the difficulty would be to find room for them all without interfering with the hatchways and manoeuvring of the vessel. Again it would be difficult to clear them all as quickly as should be, due to impediments of masts and shrouds, hatchways, deck lights, ventilators, chimneys and the like — but the greatest danger would be that of their being drawn or sucked down with the foundering vessel in the vortex which such a sinking of a vessel gives rise to and especially if, which so often happens, a vessel goes down front or aft foremost. The plans submitted however and specifications provide in as far as possible for and against all such eventualities; though on account of the risks, the exponents while leaving the value of the suggestion to the Committee to weigh and decide on, can not recommend this mode of providing for the safety of those on board.

What they do recommend as shown by the models submitted, is that the safety raft be applied outwardly, or to the sides or flanks of the vessel. M. Hurly, the originator of this idea, submitted plans in October 1900 looking to this feature of the present exhibits, but having he says been pressed for time, could not elaborate his designs, nor submit models at the time, and the plans being crude and not properly and neatly made to scale, were therefore, he supposes, left unnoticed by the Jury.

M. Baillaigé supposes however that the fact of no attention having been paid to M. Hurly's first exhibits of Oct. 1900, is that he had in no way provided for the fact that his side raft, as then proposed, would shut out cabin lights, or windows, or dead eyes so called and this of course must have been considered fatal to his scheme; as no company would put up with or adopt a system, thus destroying light and ventilation to cabins etc., and leading to the necessity of artificial lighting during the whole of the 24 hours, and all for an eventuality which might possibly never materialize.

M. Baillaigé is of opinion that this insuperable objection to M. Hurly's scheme as propounded in 1900, has been conjured by his (Mr Baillaigé's) proposal to build the rafts in a manner to interfere in no way with the light, ventilation of the cabins, saloons, dining rooms, passages or other appurtenances of the inner economy or features of the vessel. This he has done by piercing the life raft, with as many embrasured openings as there are of dead-eyes involved in the spaces to be covered by the rafts; and so as of course to be exactly opposite thereto.

At this juncture, the scheme, as matured and perfected by Mr. Baillaigé and to which Mr. Hurly has necessarily given his adhesion, is that of a side raft to which there can as will be shown, be no possible objections. The raft is of course calculated to be buoyant or insubmersible even with all on board; it being, within its steel or iron envelope or shell, made necessarily strong and stiff by timbering; while the required additional buoyancy is arrived at by a cork flooring properly secured, and by packing with cork or cork refuse the spaces or interstices between the timbered walls or partitions of the several compartments into which the raft is divided for purposes which will hereafter appear.

For vessels of heavy draught, or liners for both freight and passengers, where, when loaded, there may be but 15 ft. or thereabout, out of water, or from 10 to 11 ft. exclusive of height of gunwale (gunnel) the safety raft or rafts, would be restricted to a width of some 12 ft. more or less, thus taking in a single tier of dead-eyes and clearing those below; while with vessels almost exclusively for passengers, the rafts would be made of a width of say 20 ft. or such as to include two tiers of cabin or other windows, while again clearing the third tier, counting downward, in a way not to interfere with their light, and at just such a height