Out of this uncertainty of navigation arose a most heart­less system of gambling in maritime-insurance, the tempta­tions of which were as destructive to the mercantile honour and the morality of the nation, as the inefficiency of the ships was destructive to its seamen. Luckily, this cause of re­proach has ceased since the enactment for calculating the tonnage of vessels, which has been in force from January 1836 ; and numbers of ships are now built that very for­cibly prove how injuriously the old law must have operated in checking maritime and commercial adventure. Not that we mean to say the present law is by any means perfect, or that the rule for calculating the tonnage cannot be evaded, because this is not the fact; it can be and is evaded, but the evasions are not so destructive to the good qualities of ships as those which were commonly practised dur­ing the continuance of the old law. It is doubtful whether, in a nation whose existence depends upon her maritime superiority, ships should not be exempted from all dues. These pages are not the place to inquire how it might be possible to accomplish so desirable an exemption ; or how compensating revenues could by any means be awarded to the harbours, the docks, or the lights, which are now main­tained by a taxation levied upon the tonnage of shipping. It does not, however, appear difficult to conceive that the same revenue might be drawn from the freights which the ships carry, as the merchant would receive it back from the ship-owner in the shape of a diminished freightage.

It is exceedingly difficult, probably even impossible, to frame a rule for computing the tonnage which shall be at once of practical application, and yet not have in some de­gree the effect of restricting improvement in the qualities of merchant-ships. It is difficult to induce a man to forego a constant and positive gain for one that is only prospective and uncertain. We have seen that the obstacles which oppose themselves to correctly and satisfactorily determin­ing either the light or the load draughts of water, are suffici­ent to prevent the difference between the light and load displacements from being taken to represent the tonnage. This is, however, the only correct measure of a ship’s power to carry cargo; the difference being, of course, exactly equal in weight to the cargo which either has or may cause it. All other quantities which can be taken as measures of that power are little more than assumptions, and whether they represent the external dimensions of a ship, or her internal capacity, they scarcely give an approximation even to the power which she may possess of carrying burthen ; while, in either of the above cases, the fact that these quantities must be determined by measurements at fixed measuring places, affords opportunity for evasion, and indeed invites it. For if, by any arrangement of the dimensions, or by any peculiarity of the shape, a ship can be enabled to carry a greater burthen than her registered tonnage, the freight of that greater burthen is a premium which is offered to that one proportion between her dimensions, or that one peculiar form for her body, and a restriction is, to a certain extent, placed upon improvement ; because the ship-owner will content himself with the best ships that he can obtain, pos­sessing the advantages of those dimensions or of that form.

The present rule for computing the tonnage assumes it to be the space for stowage, and the internal capacity of the vessel is calculated in order to determine it. As there are necessarily fixed measuring places, the rule may, as we have said, be evaded by a certain build. Its phraseology may also be most easily evaded by building accommodations on deck, which will not come within the meaning of the terms that are used in it—“poop,” “half-deck,” or “break in the deck.” Under its operation vessels may also be advantageously built of very small register tonnage to carry cargoes of heavy goods ; for which purpose they should be of the lightest materials, but with very large scantlings, that the internal capacity may bear but a small proportion to the load dis­

placement of the vessel. We have already however stated, that in its effects the present rule is far less injurious to the mercantile navy of England, than that which it is intended eventually wholly to supersede.

*Rule for calculating the Tonnage of Ships or Vessels, as prescribed by Act of Parliament.*

The tonnage of every ship or vessel required by law to be registered shall, previously to her being registered, be measured and ascertained while her hold is clear, and accord­ing to the following rule : (that is to say), divide the length of the upper deck between the after part of the stem and the fore part of the stern-post into six equal parts. Depths—at the foremost, the middle, and the aftermost of those points of division, measure in feet and decimal parts of a foot the depths from the under side of the upper deck to the ceiling at the limber strake. In the case of a break in the upper deck, the depths are to be measured from a line stretched in a continuation of the deck. Breadths—divide each of those three depths into five equal parts, and measure the inside breadths at the following points : videlicet, at one fifth and at four fifths from the upper deck of the foremost and aftermost depths, and at two fifths and four fifths from the upper deck of the midship depth. Length—at half the midship depth measure the length of the vessel from the after part of the stem to the fore part of the stern-post ; then to twice the midship depth add the foremost and the after­most depths for the sum of the depths; add together the upper and lower breadths at the foremost division, three times the upper breadth, and the lower breadth at the mid­ship division, and the upper and twice the lower breadth at the after division, for the sum of the breadths ; then multiply the sum of the depths by the sum of the breadths, and this product by the length, and divide the final product by three thousand five hundred, which will give the number of tons for register. If the vessel have a poop or half deck, or a break in the upper deck, measure the inside mean length, breadth, and height, of such part thereof as may be includ­ed within the bulkhead ; multiply these three measure­ments together, and dividing the product by 92∙4, the quotient will be the number of tons to be added to the result as above found. In order to ascertain the tonnage of open vessels, the depths are to be measured from the upper edge of the upper strake.

*Mode of ascertaining the Tonnage of Steam-Vessels.*

In each of the several rules herein before prescribed, when applied for the purpose of ascertaining the tonnage of any ship or vessel propelled by steam, the tonnage due to the cubical contents of the engine-room shall be deducted from the total tonnage of the vessel, as determined by either of the rules aforesaid, and the remainder shall be deemed the true register tonnage of the said ship or vessel. The tonnage due to the cubical contents of the engine-room shall be determined in the following manner : that is to say, measure the inside length of the engine-room in feet and decimal parts of a foot, from the foremost to the aftermost bulkhead ; then multiply the said length by the depth of the ship or vessel at the midship division, as aforesaid, and the product by the inside breadth at the same division, at two fifths of the depth from the deck, taken as aforesaid, and divide the last product by 92∙4, and the quotient shall be deemed the tonnage due to the cubical contents of the engine-room.

*For ascertaining the Tonnage of Vessels when laden.*

And be it further enacted, that for the purpose of ascer­taining the tonnage of all such ships, whether belonging to the United Kingdom or otherwise, as there shall be occasion