

## IMPORTANT TO MARINERS.

---

My experience during the last thirty years in making surveys, for the purpose of constructing Marine Charts, demonstrates great uncertainty in the use of the Mariner's Compass, both on sea and land. I have no doubt that many of the shipwrecks that are constantly occurring, are in consequence of its not being known that the Compass was deranged from the effects of the local attraction of iron or other magnetic substances accidentally placed within the reach of its influence on the needle on board the vessel. These unsuspected causes may also exist, and powerfully attract the Compass in the iron used in the construction of the vessel, also in cargoes, such as iron, coal, etc.

In the construction of vessels no magnetic material should be allowed within ten feet of the Compass, and superintendents of building should allow none but the purest non-magnetic copper or composition which has been selected and carefully tested to be placed within the above mentioned distance from the Binnacle.

No class of men appear more ignorant of the uncertainties of the Magnetic Needle from various causes than Mariners. The most of them make no