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THE Description AND USES OF A SEA-CHART OF THE NORTH OCEAN, Showing the Variation of the COMPASS.

THE Projection of this Chart is what is commonly called *Mercator's*; but from its particular Use in Navigation, ought rather to be named the *Nautical*; so being the only true and sufficient *COMPASS* for the Sea. It is supposed, that all Voyages, are to be made in long Run, as not to need any Directions here. We shall only take the Liberty to assure the Reader, that having Affectionate Observations, as Journals, to ascertain the Situation and Form of the *CHART*; as to its principal several Parts; he is not to expect that we should attend to all the Particulars necessary for the Guide, but our sole Intention is, to draw the Lines drawn over the several Seas, to their true Degrees of the *Variation*; which are drawn according to what the celebrated *Dr. Halley* found in the *Western* and *Southern* Oceans, in a Voyage purposely made at the Publick Charge, in the Year of our Lord 1700.

That this may be the better understood, the custom of the *Mariner* is defined to observe, that in this *CHART* the double Line passing near *Barbados*, and the *Island* *Frisland*, every where in this Ocean, and that on the whole Northern Coast of *America*, and *Africa* is Westerly, as on the more Southern Parts of *America* is Easterly. The Degrees of *Variation*, or how much the *Compass* declines from the true North or other Side is reckoned by the Number of the Lines on each side the double Curve, which we call the *Line of No Variation*; on each Side and tenth is distinguished in its stroke, and numbered accordingly, so that in what Place, soever your Ship is, you find the *Variation* by Inspection.

That this may be the better understood, take these Examples. At *Madras* the *Variation* is 16° West; At *Barbados* 14° East; At *Affrican* 6½ West; At *Cape Race* in *Newfoundland* 18½ West; At the Mouth of *St. Lawrence* 14° East, &c. And this may suffice by Way of Description.

As to the Use of this *CHART*, they will easily be understood, especially by such as are acquainted with the *Astronomical* *Compass*, to be, to correct the Course of Ships at Sea; For if the *Variation* of the *Compass* be not allowed, all Reckonings must be so far erroneous; And in continued Cloudy Weather, or when the *Mariner* is not provided to observe this *Variation* daily, the *CHART* will rectify them him what Allowance



he must make for this Defect of his *Compass*, and thereby rectify his *Journal*.

But this Correction of the Course is in no case so necessary as in running down on a Parallel East or West to hit a *Port*; for if being in your Latitude at the Distance of 70 or 80 Leagues, you allow not for the *Variation*, but steer E. or W. by the *Compass*, you shall fall to the Northward or Southward of your *Port* on each 10 Leagues of Distance, one Mile for each Degree of *Variation*, which may produce very dangerous Errors, where the *Variation* is considerable; for Instance, having a good Observation in Latitude 49° 40' about 80 Leagues without Doubt, and not considering that there is 17½ West *Variation*, I steer every *East* by the *Compass* for the Channel, and make come up with *Scilly*, instead of being 3 or 4 Leagues to the South thereof, I shall find myself 10 or 12 to the Northward: And this Error will be more or less according to the Distance you sail in the Parallel. To Rule to apply it is, That to keep your Parallel truly, you must steer 10 or 15 Degrees to the Southward of that, and Northward of the *West*, as we do in *West* *Variation*; but contrariwise, so many Degrees to the Northward of the *East*, and Southward of the *West* as there is *East* *Variation*.

A further Use is in many Cases to estimate the Longitude at Sea thereby; for where the *Course* runs nearly North and South, and are thick together, as about *Cape Horn* *Spain*, it gives a very good Indication of the Distance far; for there the *Variation* alters a Degree to each two Degrees of Longitude really, as may be seen in the *CHART*; but in the *Western* Oceans, between *Europe* and *North America*, the *Course* lying nearly East and West, cannot be serviceable for this Purpose.

THIS *CHART*, as we before observed, was first Contrived from Observations made in the Year 1700, by the great *Dr. Halley*; but it must be noted, That there is a perpetual change in the *Variation* almost every where, which has made it necessary to correct it more from the most accurate Observations, made by the most Ingenious Navigators, about the Year 1740. There are indeed some Lines deduc'd on the *CHART*, which have so many and accurate Observations to support them as could be wished; but the *Constructors* have some reason to believe them near the Truth; However these Lines are distinguished from the others, by being dotted, or having frequent breaks in them.

We shall need to say no more about it, but let it commend itself, and all loving *Mariners* are desired to lend their Assistance and Interposition towards the perfecting of this useful Work. And if by undoubted Observations it be found in any Part defective, the Notice of this will be received by the Proprietors, with all grateful Acknowledgment, and the Chart corrected accordingly.

This *CHART* is sold by W. and J. Moore, T. Paine and Sons, at Four-Hill.