

REMARKS ON THE MARINER'S COMPASS.

By frequent experiments, it has been found that compasses should not be nearer together than 4 feet 6 inches, to avoid the disturbance known to exist when two needles are placed near each other. The error from this source has, in many cases, been eight degrees. Where it is convenient, one compass to steer by is particularly recommended, and a standard compass for reference placed on the centre line of the vessel, and as far from iron work as possible—say 7 feet. Vertical iron stanchions should be at least 14 feet from the compasses. In steamboats, the compass is materially affected by the telescopic funnels, or smoke stacks, especially when hot; and when taken down, can be sensibly observed. The standard compass should be raised much higher from the decks of iron vessels than wooden ones.

I have found great difference in compasses on these lakes—hardly two will agree. In going from a vessel into a propeller or steamboat, the difference is seen immediately. No doubt that many accidents to boats and vessels have happened from this cause—not knowing how your compasses will lead you. There is no remedy for this difference, except by constant running on a route, when you will find out how your compasses will lead you; and by strict observation, the use of the LEAD, and a good look-out, you may run with safety in all pilotable waters.

T. S. T.

NOTE.—The action of the compass on Lake Michigan, through the Straits and Lake Huron, etc.—In running down the Lake from Chicago to the Manitou Islands, your compasses will lead you to the Eastward, increasing gradually from 3 to 6 degrees, as you approach the islands; but in running due north, the compass will show more correct. On the return courses from the islands to the West shore, the compass is still more affected. (See explanation, page 24.)

In passing through the Straits, between the Manitou, Foxes and Beaver Islands, the compass will lead you about 2 to 3 degrees to the Eastward, and here it is necessary to keep a sharp look-out; but as you can generally see Skillegolee and Point Waugoshance Lights at the same time, they being only $8\frac{1}{2}$ miles apart, there is no excuse for making a mistake in clear weather. After passing Point Waugoshance, the courses are pretty true till you get down as far as Thunder Bay Island, when your compass will begin to lead you to the Eastward about 4 degrees. The course being from Thunder Bay Island Lighthouse, S by E $\frac{1}{2}$ E, to Point aux Barques, close to. On Lake Superior there is very little difference in return course, although the variation is greater in short distances.