

The information they give is very reliable on the whole, if proper precautions are taken in obtaining it. It is necessary to know the local topography thoroughly, to have some knowledge of the behaviour of the currents from observation, and to avoid asking leading questions. The bent of their mind also, is to notice chiefly the unusual features of the current, which they take as storm warnings. It is thus difficult to get them to speak of usual or normal conditions, which they pay less attention to; and they will begin at once with a description of what took place just before or after some storm. Every care must be taken to ascertain exactly where they are speaking of, and how far they were from shore; as the behaviour of these currents is chiefly affected by the distance from shore, as we have seen. They may not always give their offing correctly, but it can be checked by the depth of water in which they were at the time.

With regard to the speed of the current they undoubtedly exaggerate. They will speak of a strength of 2, or even 4 knots; but on investigation, this proves to be a mere estimate while rounding a point of land under sail, or some local circumstance close to shore. Also, when at anchor, they choose the shallowest point on a bank, where the current is thrown up by the rise of the bottom and locally increased. Under these conditions they aver that small kegs of three or four gallons, used as mark-buoys, are sometimes carried under by the strength of the current and crushed in by the water pressure. When they give some measurement, however, such as the length of line needed to reach bottom with a given weight, their estimate of speed can be checked. The best instances to serve as test cases were as follows:—

An experienced fisherman stated that on one occasion, when three miles off a headland, it took 30 fathoms of cod line, with a jig attached, to reach a depth of 8 or 9 fathoms; and such a current he estimated at  $2\frac{1}{2}$  knots. This represents an angle of  $74^\circ$  from the vertical, and the jig he used weighed 15 ounces. By experiment with one of his own jigs, when the current at the surface measured 0.86 knot, we found an average inclination of  $65^\circ$  with 30 fathoms of line out. From the formula we have arrived at, the velocity corresponding to the higher inclination of  $74^\circ$  would be 1.20 knots. In obtaining this value the droop of the line at the outer end is allowed for, which was determined by letting out shorter lengths of the line in a current of measured strength. This amount of exaggeration shows that such statements of speed may be reduced to about one-half to be right. Again, on the shallowest part of Ballard bank, one of the fishermen found that in the strongest current he met with, it required 30 fathoms of line with jig attached, to reach a depth of 12 or 13 fathoms. The angle in this case is  $67^\circ$  from the vertical, representing a velocity of 0.91 knot, which as before is quite possible in itself, apart from his own estimate of the strength.

On the other hand, their description of the effect of storms in disturbing the current may be relied upon, as this is a matter which they watch with care. Indeed, they trust to the altered behaviour of the current before a gale, as the best storm warning they are acquainted with. It is also noteworthy that it is only the least observant men who speak in a vague way of the current 'running with the wind.' The more intelligent men attribute to the direct action of the wind, and distinguish its varying effect more carefully.

*South shore from Cape Race to Cape St. Mary.*—Within a few miles of this coast, the usual set of the current in fine weather is N.W. and S.E., and the northwestward