DEPARTMENT OF MARINE AND FIREERIES

outside St. Marys bank. But if the, pass Cape St. Mary, they turn into Placentia bay and are likely to ground on the banks in the head of the bay. They rarely reach the Burin side. One small berg grounded off Burin this year (July, 1903) but it is rare for them to come as far as this.

Wind disturbance.—In the summer, bad weather usually comes from the S.E. and 'blows itself out' from that direction ; but later on, in the autumn, the wind chops round to the N.W. before the storm in over.

Off Cape St. Mary and along the south shore to Cape Race, it is only during ebb tide that there is a weak set to the S.E. Any strong set to the S.E. or S. is a sign of bad weather. The fishermen regard this as an unfailing indication, and at once run for shelter. The set of the current is thus towards the point from which a wind is about to come. To show how universally this opinion is held, we may cite the following statements from fishermen in different localities :--

Off Cape St. Mary the set is so much more northward than southward, that it will often continue northward against a strong N.E. wind. This set against the wind is commonly observed by the fishermen, and attracts their attention. But if there is any strong set to the S.E. or S., a gale from that quarter will follow. Off St. Shots on the east side of St. Marys bay, it runs strongly to the S.E. before east wind comes ap. Also during twenty four hours before a N. or N.E. wind begins, it runs strongly to the N.W. or N. for six or seven hours at a time, instead of five hours during the flood tide, which is there usual. Outside the line of the capes also, the current sets southeastward before bad weather, which comes from that direction in the summer.' If the current con. tinues to run into the wind after it begins to blow, it indicates that the gale will be heavy.

The only apparent contradiction to this, is 'rom the Burin fishermen on the west side of Placentia bay. They state that the winds have no effect on the current, except the N.E. wind which strengthens it. But to understand this, the general conditions throughout the bay must be considered. It appears that during N.E. wind, although it is directly out of the bay, the current on both sides of the bay is strengthened. It then runs strongly northward into the bay on the east side, and on the west side it runs steadily southwestward and scarcely slacks at all with the tide as at other times. On the west side of the bay, the reversed set to the N.E. is a sign of bad weather.

These descriptions of the effect of the weather could readily be amplified; but this condensed abstract will suffice, in which every statement is based on long experience, or is confirmed by several men.

The main feature is the fact of the current setting 'into the weather' as they express it; and it is difficult to give a satisfactory explanation for this. It is possible to suppose that it is only a coincidence; that is to say, the ordinary conditions are upset in broken weather, and the set of the current is then contrary to its usual direction, and this merely happens to be the direction from which bad weather generally comes. But this explanation is not satisfactory. The actual direction of the current is necessarily modified by local conditions and guided by the trend of the shore; but the greater scope and freedom the current has, the more directly it appears to set towards the coming