

ficient supply of food rich in ashes. From among the well-formed fish we will therefore select those as breeders which develop quickest. The experience of stock-raising teaches that thereby we obtain a race of quickly growing animals. This quality is inherited, and is not easily lost, even when the animal for a short period is kept under less favorable conditions. An ample supply of proper food is therefore the first condition for producing better and more flesh, and only by satisfying this condition can artificial fish-culture prove a success in every sense of the word.

It is to be hoped that soon some physiologist may be found who will make earnest endeavors to fix the standard of food, which is still unknown. Surely friends and well-wishers of the fisheries will be found to furnish the necessary means for establishing an experimental station. The German Fishery Association will surely take as much interest in the rational raising of fish as in their numerical increase and in the introduction of foreign fish. The experience of stock-raising shows that it is not necessary to import animals from abroad as long as we adopt the principles followed by foreign raisers. The same applies to fish-culture. If our suggestions should lead to some action in this matter, we are certain that the numberless ponds in Germany which have been drained will again be filled with water and be restored to their original purpose, and that large quantities of fish-flesh will be brought into the market, of a quality which at present is rarely seen on our tables.

57.—A MUD SLOUGH ON THE GRAND BANKS.

By Capt. GEORGE A. JOHNSON.

[Communicated by the Hydrographic Office, U. S. Navy.]

The opening is to the eastward and the trend of the slough is NW. by N. (p. c.). The lower point of the opening is in latitude 44° N., longitude 49° 12' W.; the upper point is 7 miles to the northward of this position. At the lower point is a depth of 128 fathoms and at the northern 45 fathoms. In the center of the slough no bottom was obtained at 300 fathoms, and at one point along the northern edge bottom was obtained at 150 fathoms. From a point about half way the length of the slough, on its southern side, the vessel dragged in a NE. direction between 6 and 7 miles, with anchor down and 150 fathoms of chain out, until it brought up at the point on the northern edge somewhat beyond the point referred to above as having a depth of 150 fathoms. Along the edge of the bank the current runs about SSW., while in this slough the water is nearly dead, what little current there is being in some places just the opposite of what it is along the eastern edge of the bank.

From the opening to the NW. edge of the slough is nearly 10 miles, and at no point inside it do the soundings agree with those given on either our own or the English charts, but a French chart shows something like this pocket.

The slough is wider across the center than at the opening. The position given is one determined by three persons, each of whom had his own chronometer, and the three positions differed but little over half a mile. The one given is the mean.

There is a similar pocket off Sable Island, with the opening to the southward, which is 5 miles across and in which soundings have been found at a depth of 350 fathoms.

This pocket is of the same character as the one described, but only one position has been observed, which is latitude $43^{\circ} 17' N.$, longitude $61^{\circ} 8' W.$ There are several of these pockets on the Banks which are known to the fishermen of Gloucester, as they go to them for halibut.

SCHOONER AUGUSTA H. JOHNSON, *Gloucester, Mass., July, 1885.*

88.—THE PEARL FISHERIES OF TAHITI.

By BOUCHON-BRANDELY.

[Abstract from Official Journal.]

The author was sent by the Ministry of Marine and the Colonies on a mission to Tahiti to study questions relating to oyster culture there. The principal product of what Brandely, with "the summer isles of Eden" fresh in his mind, calls "*notre belle et si poétique colonie de Taïti*" is mother-of-pearl. All its trade is due solely to this article, which for a century has regularly attracted vessels to the islands which compose the archipelagoes of Tuamotu, Gambier, and Tubai. The mother-of-pearl which is employed in industry, and especially in French industry, is furnished by various kinds of shells, the most estimated, variegated, and beautiful of which are those of the pearl-oyster. There are two kinds of pearl-oysters; one, known under the name of pintadine (*Meleagrina margaritifera*) is found in China, India, the Red Sea, the Comoro Islands, Northeastern Australia, the Gulf of Mexico, and especially in the Tuamotu and Gambier archipelagoes; the other, more commonly called the pearl-oyster (*Meleagrina radiata*), comes from India, the China Seas, the Antilles, the Red Sea, and Northern Australia. The shell of the former is harder, more tinted, more transparent, and reaches greater dimensions than the latter. Some have been found which have measured 30 centimeters in diameter and weighed more than 10 kilograms, while the *Meleagrina radiata* rarely exceeds 10 centimeters at the most, and never weighs as much as 150 grams. Both varieties supply pearls, those of one kind being at one time more favored, at another time those of the other. This depends on fashion; but, on the whole, those found in the