

and must be kept abreast with the advance in knowledge and the improvement of machinery. New methods or new adaptations may be tested by inexpensive experiments on a small scale; experiments giving the best results can be applied on a large scale.

SELECTION OF LOCALITY.

Before going to expense in preparation for oyster-culture it is well to make sure of a few primary essentials with regard to locality, site, accessibility, market, transport, and the like. It must be understood, of course, that it is rarely possible to obtain everything that is desirable in a single location. But some things can be done without, even though inconvenient, while others cannot be dispensed with at all. A good deal depends upon the kind of culture it is proposed to carry on and whether such work is or has been conducted in the district before.

If there are or ever have been natural oyster-beds or scattered oysters in the region, one may feel sure that the physical requirements are at least somewhere near the mark. If there are no oysters but other bivalves, it usually accompany oysters, the conditions may still be sufficiently suitable for some phases of culture. In any case it is best to examine with regard to the four primary essentials referred to in the section on environment (1015)—*viz.*, sea-water (salinity), heat (temperature), bottom (substratum), and food (nourishment)—in order to decide whether or not oysters are likely to be able to live at the place under consideration. In this connection it must also be remembered that planted oysters can often live where reproduction would be impossible, and if the complete process or all the processes of culture are to be pursued it is necessary to be still more careful about the selection of a locality. The extent of the variation in salinity and in temperature, the amount of fluctuation in rise and fall of tides, the depth of water, currents, fresh water, flats, beaches, and exposure are some of the main things.

One of the first questions to arise is whether the business can be made remunerative. To judge this requires a consideration both of the probable productiveness and expense of working. The first must take into account the possibility of securing sufficient area to be worked and the chance of extension in order to keep pace with a growing trade. The second deals with such things as manner of working the beds, whether at low tide on exposed flats or at other times by means of tongs or dredge; accessibility of the beds; proximity of a continuous market; means of transport by trail, railway, or boat; possibility of hiring help; sites for house, wharf, and other necessities convenient to both beds and shipping-station; means of living; provisioning and of procuring utensils and construction materials. The best locations are those possessing more than one kind of regular communication with large cities, so that competition will keep down rates and orders may be filled often and promptly and without delay in transit. On the other hand, on account of the manner in which the oyster procures its food, oyster-beds should be kept out of the way of drainage and sewage from large centres of population and from wastes from manufactories, mills, and the like.

GOVERNMENT PERMISSION.

It needs scarcely to be mentioned that the sanction of Government is required to right of usage of a bay or portion of a bay or other body of navigable water for special purposes. Such right refers only to the purpose for which granted and should not interfere with the rights of others in legitimate navigation, fishing, etc.; neither should others interfere with the rights of the culturist or damage or remove any of his property. It must be understood that property on or under sea-water or exposed at low tides can be personal and private in the same sense as property on land, and as such is subject to protection according to law.

APPARATUS AND CONSTRUCTION-WORK.

Even the simplest kind of culture on a small scale requires some apparatus and construction-work. It is surprising how little suffices at some places. It may be well to not procure or construct much at the start until it is found by practical carrying-out of the processes what will be most convenient and efficient for the locality. A strong, somewhat shallow motor-boat with some deck-space, a float, a wharf or landing, a house, are most likely to be needed. Instead of several large scows some companies make use of a larger number of much smaller "batteaux" that can be left anchored on different beds ready for loading, and because of their narrowness and pointed fore end are not so likely to drag anchor in a storm or be swamped and may be