

# Cultivating Eastern Oysters at Esquimalt Harbor



BRINGING THEM IN BY THE SHORTFULL ODDITION

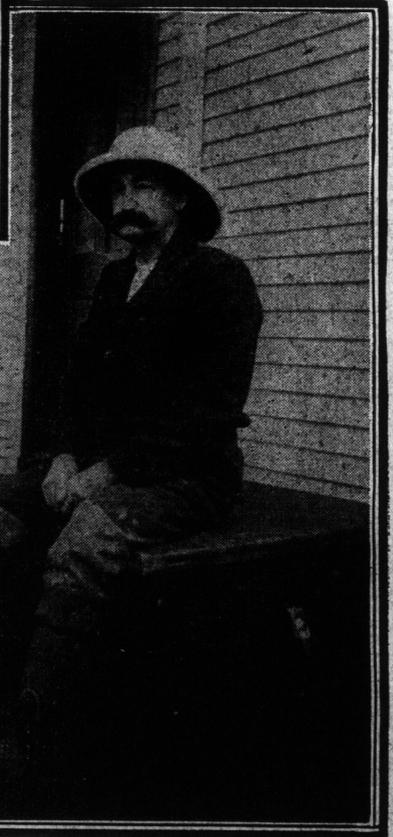


AT WORK AMONG THE OYSTERS

more heavily to supply the demand. Indians and white men resorted to them at all times and seasons, gathering the oysters by the canoe load and shipping them into the market. The starfish, too, ever an enemy of the oyster came up from the deeper waters and so nearly completed the work of stripping the beds that today many that were once wonderfully productive are no longer oyster beds but barren mud flats with a few shells to reflect the past productiveness.

## THE PILGRIMS OF TIBET

Once in Tibet we passed two young lamas from Khan. They did not walk like ordinary pilgrims, but literally measured off the distance with their own bodies. Lying down full length on the ground, they would join their hands over their heads and read a prayer, then make a mark on the road, arise, join their hands together again and repeat the entire cer-



THE PLANTER - CAPT. GEO. V. WILLIAMS

**H**ALF dozen on the half shell? Yes, sir. Eastern?"

"No indeed. Give me Esquimalt oysters. There is flavor, size and all else that the epicure prizes in the Esquimalt oyster."

It was an Easterner, this oyster, but moved to the coast. It came young, in car-load lots, welliced, from the beds of its childhood at Cape Cod and Bridgeport, Conn. over the Canadian Pacific Railway to find new beds in the rich harbor bottom of Esquimalt, where it waxed fat and prospered.

At Esquimalt, where sheltered in the little bay into whose head flows the rivulet beneath Parsons bridge, the West Coast Fishing company has its oyster beds laid out in acre after acre covered with the shell-fish, those who care to follow the workers into the silt when the tide runs out at early morn can see the bivalve in its youth, its middle age and in full growth. They can see the oyster sorted from its smaller fellows as the big rakes drag it from the bed to load the boats which lift with the rising tide to carry the harvest gleaned at low water to the sorting house at the edge of the little cliff where Capt. George V. Williams, the manager, and Mrs. Williams live in a cosy bungalow that looks out upon the harbor beyond, with the masts and funnels, rusted hulls and tapering staffs reminiscent of the days before he left the bridge of the Oriental liner Lyra to become oyster planter and manager of the company of Victoria, Vancouver and Tacoma men whose enterprise in cultivating eastern oysters at Esquimalt bids fair to be such a success.

There are now four millions oysters in the Esquimalt beds. They do not propagate. The cold water is considered responsible for this, but if it does prevent the regeneration, it also has the effect of growing the transplanted oysters better. A year ago there were a million and a half young oysters at Esquimalt, and some months ago more were added until the beds contain over four millions. All were planted small in the year of their childhood. They were not more than nine months old. They matured quick. Now, big shells four, five, six inches long are lifted by the oyster tongs and piled high on the boats for the sorters who pick them and load the culled oysters on the firm's delivery wagons, which cart the loads from Parson's bridge to Victoria for the local market, and the Vancouver market; these are the only fields yet invaded, but it is not long before the northwest and Puget Sound markets will also be entered.

The little oysters, tiny shells, were brought by scow from where the C. P. R. cars were sidetracked at the edge of Esquimalt harbor. When the tide was low the land on the harbor bottom had been cultivated. It had been tilled and raked as though a submarine farm had been intended. Pathways were made. The harbor bottom was laid off as for a giant's chess board, suggestive of the paddy fields of the Oriental rice lands. Big rakes harrowed the mud, and soon, well cultivated, it was ready for planting. Branches were planted in row after row until, with the rising water, the cove seemed like a flooded orchard, these marking the pathways and borders of the beds, each approximately fifty feet square. Into these beds the planters placed from 100,000 to 200,000 young oysters, the number varying according to the condition of the soil. The oysters feed upon the insect life of the water, the animal life and vegetation of the soil and water, and some beds offer richer feeding grounds than others.

The beds once planted, time does the rest. The workers tend them, rake and sort them, prevent overcrowding, and as the days and weeks go by the shells grow, the oyster fat-

they are left paddling in the waters close in shore, raking the closer beds. If further work is necessary they must go into their flat-bottomed boats, armed with the double rakes which the oyster planter knows as "tongs" to lift the oysters from beneath the water. Most of the work, however, is done at low water.

At high water the loaded boats are towed in to the sorting house on the float at the edge of the jetty under the bluff where Capt. Williams has his home. There the sorters cull the morning's take and the shipments for the market are prepared, the company's delivery wagons are loaded and start for the stores where dealers sell to Mrs. Victoria.

The methods of culture at Esquimalt are somewhat dissimilar from those in vogue on the Atlantic side. There most of the planting is done in water where the bottom is never visible, often reaching a depth of thirty feet and upward. The ground varies there from quite soft to that almost as hard as asphalt pavement. Labor saving devices also, have been made a prominent factor in the economical development of the enterprises on the eastern coast, and steamers of a net register of fifty tons or more, equipped with large dredges, operated by steam hoisting apparatus, bring from the depths with these from fifteen hundred to twenty-five hundred bushels of oysters during the course of an ordinary day's work. A crew of four men is needed to man these dredges. Here, as in most beds on the Pacific Coast, the cultivation is carried on entirely in the shallow water, and the work is much easier. It is much more difficult to clean up a bottom of oysters where the bottom cannot be seen. Moreover, a deep bottom on this coast is impracticable, as many oysters would be lost and money would be lost on the planting. In the east where oysters regenerate naturally, even if some are not obtained by the dredges, the cost of them has been nothing; while here where every oyster must be bought for planting, and in addition to the purchase price must pay a freight rate of \$2.55 per 100 pounds, it will readily be seen that an oyster saved is an oyster made and an oyster not recovered is money lost. One big advantage possessed by the western beds is that the oyster beds are not threatened by the heavy freezes of the east, where ice forms over the harbors and remains fast for from four to six months in some places, and the planters of the Pacific coast do not have to be careful to avoid the dangers of freezing and thawing of the oysters or the carrying of them off in the ice drifts.

Machinery, too, enters little into the work in the west. The beds are soft bottomed, and dredges are not used to any extent for fear that the crust will be disturbed. The dredge used in the east is a huge and heavy rake or scraper which drags the oysters into a bag, the entire apparatus being lifted to the surface when the bag is full. At Esquimalt, when the tide has covered the beds, tongs are used instead of this method. A pair of tongs is geared something like a pair of scissors with long wooden handles, except that instead of having blades, something like two rakes is used, and raised to the surface when filled with oysters. The use of rakes and short tongs is another method adopted.

For the past four years the Washington State Fish Commission has been carrying on a series of experiments at its fisheries experiment station at Keyport, endeavoring to find some method whereby the eastern oysters might be propagated here. It has been found that the reproductive elements ripen and are cast into the water, but aside from an occasional oyster being found, practically no set results from this spawning. The observations and experiments that have thus far been made seem to indicate that the temperature of the

water is too low, particularly at night, and subject to too sudden changes for the young embryo to develop. It is possible that with some systems of enclosed ponds or tanks where the temperature of the water can be controlled better results will follow.

The success attending the transplanting of the eastern oyster has suggested the possibility of introducing other species into our waters. Attention has been turned particularly to Japan, where they have several species of oysters, three, at least, of which are of commercial importance. The Japanese have developed quite a complicated system of cultivation and produce an immense number of excellent oysters. Those around Hiroshima attain about the size and shape of the eastern "Blue Point." The shells are deep and thin and have much the same general appearance of an eastern oyster. Further north, around some of the northern islands, another species is found which attains a much larger size. This is not cultivated to any extent, being a deep water form. A study of the temperature and general conditions surrounding these Japanese oysters indicates that they would be particularly well adapted for transplanting here and it is possible that they might propagate readily.

The Bellingham Eay Company recently made quite a large shipment from Hiroshima and planted on their beds near Whatcom. Through lack of proper packing and care in shipping many of these were lost, but enough were saved to indicate that better results may reward future efforts. Some of the other large companies are now seriously considering making shipment in the near future.

Among the native oysters of this vicinity probably the best known are those of Young Brothers, of the New England hotel at Sooke. Indians living in this vicinity can point out many places where there have been extensive beds of native oysters, the head waters of Victoria arm beyond the Gorge having at one time been well stocked. Not only here but also on Puget Sound and in Oregon waters large areas could be found a few years ago where these oysters grew and flourished abundantly. The shell heaps on the shores of many bays show that the Indians have for many years visited these beds and obtained a large part of their food supply from them. The early settlers found in these oysters a substitute for the much larger oyster of the eastern coast, which has now followed them in their migration westward through the enterprise of a local syndicate. As the cities grew the demand for oysters increased and each year these natural beds were drawn on

emony all the way round the mountain. Performed in this manner by "prostration," the journey took 20 days. The two lamas we saw had only done about half the distance, and they contemplated doing the whole journey twice. One of them was to return there after having completed his duty as a pilgrim. The other—he was barely 20 years old—was to pass the remainder of his earthly life in a dark grotto on the banks of the Upper Tsangpo.

Few forms of self-mortification are of such value as this life spent in the dark, this absolute separation from the world, from one's fellow-men and the light of the sun. In Linag-gunpa I obtained much valuable information regarding this curious custom. In the prayer grotto at that place—a little stone hut at the foot of a cliff—was then a lama who had already been immured for three years. No one knew him, no one knew whence he came nor what his name was, and even were one to know his name it was forbidden to mention it before human beings. But they told me the day he went into the grotto he was followed in most solemn procession by all the red monks of the monastery, and when all the ceremonies prescribed in the holy books had been gone through, the narrow entrance into the grotto had been closed up again. We were standing outside it. I asked the head lama whether he could hear us talk. He replied, "Oh, no; he can neither hear nor see; he is sunk night and day in profound meditation." "How do you know that he is alive?" "The food (tsamba) which is passed into him once a day through an underground passage is eaten up by the morning; but should we find the dish untouched one morning, we should understand that he had died."

How wonderful! For days and weeks I could not drive the picture of this lama out of my mind. Never to hear a human voice, never to get a glimpse of the sun, never to see the difference between night and day, only to know of the approach of winter by the lowering of the temperature. I pictured to myself the day when he was entombed in the cave. He sat there alone and watched them fill up the opening with blocks of stone—the light growing continually less, till finally only a tiny little hole was left. Through this he took his last farewell to the sun, and when that, too, was fully closed up, he remained in complete and utter darkness. Since that time three years have now elapsed. In another temple like Lingga, absolutely unknown by Europeans, a lama had lived immured in this manner for 69 years! Sven Hedin, in Harper's Magazine,

ing convalescence after Waddeston Manor in

enie has not followed the women of wearing Majesty still keeps to and the pink toilettes, an evening rarely dons Spanish complexion is it is somewhat re- love so becoming to it, not overlooked by the e country.

of the modish feminine t made of thick work- killed coat, and tam- pt a hint of color ap- ame. A more servit- he navy serge skirt— o'shanter, and leather brown. Red is little ch is a matter for re- as upon the river, be-

with Princess Patricia, arents' love of simple ting much of her time o head of the weather. r life, however, the cesses, is uncasing in ally, and both at Bag- e household arrange- and the utmost com- Connaught is a keen china, and odd treas- mostly from foreign er houses.

has inherited all her (Victoria) love of the r husband, the Duke t Mar Lodge until the ighness and the Duke s at Mar Lodge, al- ore than 120 spacious nce of Wales will be the deer drives in Mar

## NOTES

which has been largely esented to him on his (which is August 28, Mr. Aymer Maude's Tears," was issued by er things the book tells ow, and to what ex- y the Socialist group, of Nicholas Tchay- ropaganda in the early dents narrated in the ny previous account of pleading at a court- as being tried for his e a detailed and most half-century of the life r, and of the most re- our literary contem-

ons, was published on ne Arthur is the pre- ntre of a nightly cor- dies, who meet to "un- get to the bottom of by one reviewer, been re." He is thoroughly urbstone society, whose y for romance and in- be it cabman, drunken e wretch, he draws all an artist and brother.

ving been quite done to reudice exists against novel reader has also a look at a story by a e objections, Mr. Wer- tory which had to con- es. The work is "The Openshaw, and it can- not been equalled since e faith is justified, as year.

## CLIPPINGS

our heart, dear love? e knock?"

Peach at the tree, reach of me, at breezes, how I worship now! eye may see on the tree. Now, alas! e orchard grass

y in wrath hanging in my path? ith them—but, ah su the tree.

ght through the blue els peeping and you, ng.

right up there, e all night, fear

and die— I am seven— the sky even.

Girl e sky, e the laughing breeze, white snow, the great green trees.

ust be! ough I am blind; e laugh, e're unkind—unkind."

dear way, ough I am blind? t my cheek, I am resigned.

one Gone e away, silent land; old me by the hand, rning stay.

ore, day by day, e that you planned; understand en or pray.

o for a while e do not grieve; corruption leave s that once I had, forget and smile member and be sad.

—Christina Rossetti.