

In November, however, a portion of the area off Chilaw was examined by a running survey by dredge for the purpose of charting the paar area, and a chart is given with the present report. In this charting no idea can be given of the number of oysters present, but a picture is provided of the general limitations of the paar ground and the general slope of the area. It also shows the nature of the paar and will indicate the presence of oysters, although small patches of oysters may be missed. Current observations on the

main Pearl Banks were continued. There is a westerly trend in all currents which would tend to take all pelagic oyster larvæ present when the observations were made out into the deep water, where they would be lost.

Dr. Pearson has obtained all particulars for a new boat to take the place of *M.L. Lion*, which has been condemned. The new boat is to be of the modern Scotch type of fishing boat, with a length of 45 feet, beam 13 feet 6 inches, draught 5 feet 6 inches.

Afforestation in New Zealand.

THAT private companies have been formed in New Zealand to promote afforestation work is well known. Many of these companies have now been federated into the New Zealand Timber Growers' Association, which publishes an official quarterly known as the *Timber Growers' Quarterly Review*, the second number (for September last) of which has recently appeared. This number deals primarily with reports, etc., of the 1930 Conference of the member companies of the Association.

The attitude of the companies towards this new national industry and the aims and objects of the latter are well portrayed and merit a close study in Great Britain. The member companies in the Association now represent a combined capital of £5,000,000. "Afforestation in a minor way", it is truly said, "is practically useless and would really mean nothing whatever either to New Zealand or the Empire; and although the companies represented in the Association to-day have joint afforestation schemes in hand comprising over 250,000 acres, the desired objective is a million acres of exotics." The magnitude of the task can be readily appreciated, as also the value of combining.

The delegates to the Conference had the opportunity of meeting the Prime Minister, Hon. G. W. Forbes, who has recently been at the Imperial Conference in London, and the Minister responsible for the N.Z. Forest Department, the chief matter under discussion being the important one of future co-operation in research work. Here the Association is taking the broadest views. The president, Mr. W. Fraser, in discussing the question with the Minister, pointed out that while the Association "had planned in the first instance to establish its own arms of research, the successful functioning during the past 12 months of the Biological Committee, to which not only the Association but also the Bureau of Scientific and Industrial Research, the Cawthron

Institute, the Sawmillers' Federation, and the Forestry Department had contributed brains and money, had indicated the possibility of still further co-operation in matters that are equally of joint interest and joint advantage".

The New Zealand Timber Growers' Association is said to consist largely of business men who may be regarded as trained executives and organisers. It also embodies technical forestry men of wide and sound experience and established judgment. It regards research as being a most important and vital adjunct or partner of business, and is prepared to forward energetically and substantially to endow useful research along business lines in the interests of afforestation. This was the message of the 1930 Conference.

There was no attempt on the part of the Conference to minimise the value of the work (much of it of an experimental nature) of the State Forest Service during the past quarter of a century. Far otherwise. But the importance of the provision of a large volume of softwood timber, which it has been shown can be grown on large areas of available land, has been fully realised; also that this work, to be done expeditiously, is a purely business proposition, quite outside the capacity of a State Department, which could not be granted the funds from the public purse to carry it on with such rapidity.

The realisation of this fact and the coming of the private companies, run on investors' capital, is remarkable and furnishes evidence of a shrewd foresight on the part of the New Zealanders. Not less remarkable, if we compare it with the reduplication of research work in different institutes and so forth in Great Britain, is the swift recognition by the leaders of the Association that co-operation in research with the existing centres would be the most practical step to take, instead of bringing into being new and independent ones.

Archæological Investigation in Oregon, U.S.A.

RESULTS of archæological investigation on the middle Columbia River undertaken by the University of California in 1924-26 are recorded by W. D. Strong, W. E. Schenck, and J. H. Stewart in the University's *Publications in American Archæology and Ethnology*, vol. 29, pt. 1, under the title "Archæology of the Dalles-Deschutes Region". This area was chosen for investigation as the geographical and economic conditions at this point of the river are such as to have made it one of great importance to primitive man, and it must have been occupied from a remote period.

Seven distinct types of evidence were exposed, these including the Wakemap Mound, village sites on Miller's Island, burials—cremation and pre- and post-Caucasian inhumations—as well as numerous petroglyphs. Of these, the most important were the mound, on account of the depth of the deposit con-

taining evidence of occupation, and the cremation burials, on account of the richness of their culture. It was noted that the culture of the cremation burials was quite distinct in character from that of the mound, the former being of an entirely ceremonial and ornamental character, while the objects from the mound were entirely utilitarian. On the whole, however, there was good reason to think the two are connected, and to regard them as representing two sides of a single culture. It is also suggested that the old type conical, semi-subterranean house is connected with the mound culture, but that connexion is not yet proved.

It seems probable that most of the rock carvings are to be associated with the mound and cremation culture, most of them being attributed to the Wakemap people. There is a lack of relationship between the post-Caucasian burials and the mound and