

since our coast waters seem to possess all the necessary conditions for the propagation of this fish and for its development; and finally, because for this culture one of our vessels could easily be prepared, thus avoiding, at least for the present, the necessity of building more costly apparatus on land. Such a vessel, if stationed at Nieuwediep, could certainly be employed under the most favorable conditions, because there are in that place many cod-fishermen and an abundance of excellent sea-water. If any one desires to study the construction and arrangements of such a vessel, he can do no better than visit the American exhibit in the London Fishery Exposition, where he will see excellent models of the American vessels and other apparatus employed in fish-culture.

I have mentioned above that as regards the salmon, whose culture—thanks to private enterprise—is in good hands in our country, it may for the present be left in these hands, thus freeing the Government from this responsibility.

I cannot conclude my article without once more directing attention to the circumstance that if we seriously think of having the third part of the programme of the American Commission, viz, the propagation of food-fish, placed in charge of our Government, we must by no means lose sight of the first and second part. With this view America has established a zoological station at Wood's Holl. Also in the Netherlands the establishment of such a station—much of whose work would prove of great benefit to the fisheries and fish-culture—would lead to a harmonious co-operation of science and practice, which could not fail to bear rich fruit and to increase the general well-being of our nation.

If after a number of years some one should again report on fish-culture in the Netherlands, let us hope that he will be able to present a different picture from mine, and give a glowing account of a public interest, no longer neglected, but advanced to such a degree as to prove a blessing to our entire country.

57.—AN ANALYSIS OF ARTESIAN WELL WATER FROM THE SHAD-HATCHING STATION AT HAVRE DE GRACE, MD.

By FRED. W. TAYLOR.

[Chemist of the Smithsonian Institution.]

An examination of the specimen of water from an artesian well at the Battery Station of the United States Fish Commission at Havre de Grace, Md., shows it to be heavily charged with iron, lime, and chlorides. Magnesia is also present in considerable quantity. The iron and lime are very heavy. Sulphuric acid is present only as a trace.

WASHINGTON, D. C., *June 21, 1883.*