380 BULLETIN OF THE UNITED STATES FISH COMMISSION.

ripe and they can be treated by artificial impregnation. I doubt whether the matter of furnishing hiding-places for the fish is particularly important. This, however, can be managed by bringing in floating seaweeds to form a surface over the water and serve to oxygenate it. This floating green scum cannot in any way injure the water or fish.

WASHINGTON, D. C., July 5 and 14, 1883.

185.-METHOD OF CATCHING CARP WITH A HOOK.

By PAUL QUATTLEBAUM.

[From a letter to Chas. W. Smiley.]

I use a beardless hook for two reasons. It can be taken from the mouth of a fish with greater ease and does less injury. I often catch carp for visitors to examine, and then return them to their native element. They may also be removed to other ponds in good condition. For catching small fry I use no cork; for large fish I prefer one, with lead enough on the line to sink the hook a few inches in the water, but they will take it at any depth. Late in the afternoon or early in the morning is the best time of warm weather. When the sun is shining brightly, and its rays strike deep down into the waters, the carp retires from his feeding-grounds and remains at rest until the shade of the evening lures him from his quiet retreat. On warm cloudy days, when trained to artificial feeding, the carp may be caught at any hour, but less readily about noon. It is a waste of time to angle for them in cold weather. It is well known that the carp declines all food in freezing weather, and that the appetite varies with the temperature of the water to a certain degree. In my ponds, near Leesville, I can catch either kind of carp as above stated from April to December. I train them to come to the surface of the water for food so as to enjoy the pleasure of seeing them scramble for it. The cheapest of light bread, made of midlings or shorts, expressly for the fish, is what I use. The same answers for baiting the hook, but a piece of waffle, cut the right size for the fish you desire to catch, is better, being tougher and not so easily taken from the hook by the fish. I first collect the fish together by throwing in a handful of small bits of bread-say one-half inch square-then I drop in my hook, attached to a strong line at the end of a suitable cane, and in less than a minute I am almost sure to bring a carp to grass. More time is generally consumed in putting the bait on the hook and taking the fish off of it than in luring him to take the bait.

The your g fish hatched early last May are now 5 or 6 inches long. LEESVILLE, S. C., July 30, 1884.