

ARTIFICIAL PRODUCTION OF FISH.

The object of this Pamphlet is to make known the means by which fish of all descriptions may be multiplied in rivers to an almost incalculable extent. The principle employed is not new in theory; but it is only within the last few years that any practical application of it on an extensive scale has taken place. This application has been made in France, and with success so complete and extraordinary as to be almost incredible. Our hope is, that it will be adopted on a grand scale in this country also. In Great Britain and Ireland there are rivers and streams, lakes and canals, innumerable; and they may be made to yield annually millions on millions of fish: we say millions, and say it on good authority.

It has been remarked, that the man who makes two blades of corn grow where only one grew before is a benefactor of humanity. If this be true, and true it is, we respectfully submit that our tiny volume is worthy of the attention of the legislator, the country gentlemen, and the clergyman,—for it shows how an immense addition may be made to the people's food with scarcely any expese. To persons engaged in the fishing trade in rivers, and to professed anglers, it will, we conceive, recommend itself.

I.

The manner in which most fish propagate their species is of course well known to all readers.

“No sooner,” in the words of a most distinguished naturalist, “does the sun of spring begin to spread its vivifying warmth, and no sooner does its renovating and irresistible influence penetrate to the depths of the waters,” that a peculiar organ developes and increases in male fish. This organ, which is double, and which extends itself in the superior part of the abdomen, almost equalling it in length, has received the name of *milt*. The milt is the seminal or fecundating liquor. It grows gradually during several months; and then softens, or so to speak, melts or ripens, as spawning time approaches. When discharged from the fish it is of a milky colour.

When the milt begins to form in the male, the ovaries of the female begin to fill with eggs, which however are almost imperceptible. These organs are two in number in the greater part of fish, but only one in the others. Confined in a membrane, they occupy in the abdomen a place analogous to that which the milt occupies in males, and are nearly equal to it in length. The eggs they contain increase in proportion as the milt becomes tumified.

As the eggs grow they cause pain and become very burdensome to the female; until at length she is obliged to relieve herself of their weight and volume. This she does by pressing her belly against pebbles, or any other hard substance at the bottom of the water. The eggs flow from her by the anus. She previously prepares a sort of hole to receive them.

Then comes the male, and by a like pressure he relieves himself of the milt, which flows also from the anus on to the eggs, and fecundates