

WINTER LECTURES, 1897-8.

A novel and most interesting feature of the lecture course of the past winter was a series of three practical demonstrations given by the President, of the three most important divisions of the Animal Kingdom, illustrated by A Fish, a Bird, and a Mammal. All who were fortunate enough to attend these lectures were charmed at the skill shown by the lecturer in dissecting the specimens and explaining the uses of the various organs exposed by the dissecting knife at the same time that they were pointed out on enlarged charts hung on the walls. At all of these lectures, specimens and a fine selection of lantern views were shown, which added largely to their educational value.

I "A FISH."—In his first lecture (Feb. 8th) Professor Prince described the main features in the form and structure of such a typical fish as the Pickerel or Doré. The pointed head, the tapering tail and the powerful fins, especially the breast fins, were referred to. The teeth are sharply hooked and not adapted for mastication, but rather for seizing and holding the prey selected for food. Digestion, on account of the powerful solvents secreted in the alimentary canal, is rapid. In the main fold or bend of the intestine the ductless spleen lies. It is an organ probably connected with the formation of blood. There is no pancreas (or sweetbread) in fishes, but the bunch of finger-like organs attached to the stomach, called the pyloric cæca, performs the same function in connection with digestion. By means of the red gills, through which the blood circulates, the pure air dissolved in water is breathed and oxygenates the blood. The circulation in fishes is very simple. The two-chambered heart, situated far forward, almost beneath the chin, drives the blood by the central aorta and afferent branchial arteries to the gills, where it passes along the fine comb-like filaments and returns to the dorsal aorta, which carries it along the underside of the backbone and thence all over the body. It collects again in the two large veins which empty into the ductus cuvieri, and thence into the auricle of the heart. There is thus no separated double circulation in fishes. The hearing of fishes