

**A GERMAN VIEW OF THE AMERICAN SECTION IN THE BERLIN FISHERY EXHIBITION.****By DIRECTOR HAACK.**

[Translation.]

[From "Referat des Herrn Direktor Haack über die Internationale Fischerei-Ausstellung zu Berlin." (Report of Director Haack on the International Fishery-Exposition at Berlin). Metz, 1880.]

Everything which America had sent was on a magnificent scale. The American exhibit was distinguished by the enormous number of objects placed on exhibition, giving not merely a faint image of the fisheries, but a complete view of the fresh-water and salt-water fisheries, for the greater part in original representations. The American exhibit was moreover distinguished by the neat workmanship of all the objects and by an exemplary arrangement which in all particulars showed the practical man. It is impossible to enter into details, as this would take up our entire space, for the American department was a complete fishery-exposition in itself.

We shall, therefore, only cast a rapid glance at the numerous boats, both originals and models, examine a little more closely the "dories," so much admired by all connoisseurs, learn to know the portable canoes of the Indians and trappers made of bark and skins, admire the truly magnificent scientific collection filling several rooms, and finally devote some time to the department of pisciculture.

Much of the apparatus on exhibition was already known to us, as for about three years we have imitated the Americans in this respect; thus we know the Holton apparatus, the Wilnot hatching-funnel (really, as we now learn, invented by the well-known American pisciculturist, Fred. Mather, who twice already has safely transported eggs of the California salmon to Europe); the Seth Green shad apparatus, &c. But lost in astonishment we stand before the large model of the Fish-hawk, a large steamship specially constructed by the American Government for purposes of pisciculture. This steamship contains, both in its interior and on its sides, hundreds of large pieces of apparatus for hatching fish-eggs. The steam-engine partly serves for pumping up the water, thus producing a constant current of water through all the apparatus inside the vessel, and partly for moving to and fro in the water the apparatus attached to the sides of the vessel, thus vivifying the germs of the eggs. This government steamer visits the principal fishing-stations during the spawning-season of the shad—a fish closely resembling our "May-fish" (*Alosa*)—takes up hundreds of millions of impregnated eggs, develops them further in the manner described above, and, when the young fish have been

hatched, sets them out in the most suitable places. This steamer also goes out to sea and hatches millions and millions of the finest salt-water fish.

With all our piscicultural efforts we must confess that we felt very small when viewing this grand American exhibit; and the magnificent results obtained in America are a sufficient guarantee that this is no "American humbug." For the present we can certainly do no better than to strain every nerve and imitate the example set us by the Americans.

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**PEAT-BOGS AS FISH-PONDS.\***

[From "Oesterreichisch-Ungarische Fischerei-Zeitung," volume IV, No. 1, Vienna, January 1, 1881.]

The proprietor of the establishment *Fischhof* near *Stettin* has shown how easily and with what little expense fish-ponds can be made, and how well it pays to stock them with young fish; for his pond, with an area of one-fourth acre, not only supplies his large family with food, but also yields him a very fair revenue. Nine years ago he commenced to dig peat from a very barren piece of ground. The peat was found to rest on a layer of lime, which he likewise utilized. When the spring-water began to overflow the ground, he got a peat-raising machine, with which he took out all the lime and peat. The very first year, this thoroughly exhausted peat-bog and lime-pit was stocked with one-year old pike, perch (*Perca fluviatilis*), bleak, tench, and bastard carps (*Cyprinus carassius*). During the first five years these fish were well protected; and four years ago he commenced to catch fish which were fully matured and particularly fat. Thus he has, among other fish, caught with a spear a very fat pike weighing  $9\frac{1}{2}$  pounds, which certainly must have been one of the fish with which the pond was stocked in the beginning, which shows that it had increased about one pound in weight per year. The pond in question has now an area of one-fourth acre and an average depth of 12 feet. The banks are very steep down to the bottom, and the water is spring-water, which, through subterranean channels, comes from the neighboring pine forest of *Leba*. The water flows off through a draining ditch; but fish cannot escape in that way, as the outflowing water has not sufficient depth. The pond seems to contain an abundance of fish-food. The water rests on the characteristic lake-bottom; the steep banks, going from bottom to top, show first a layer of marshy peat about 6 inches thick and utterly worthless; on this rests the marsh-line—a mass of sweet-water shells—3 feet thick; next comes a layer of very valuable peat, 7 feet thick, and on the top of this a layer of drift sand, 2 feet thick, overgrown with grass. The sides of the pond therefore contain lime, peat, and sand. From these sides, perhaps also from the supply of forest water entering the pond through subterranean channels, the fish obtain their food; for they are

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\*Torfgruben als Fishteiche.—Translated by HERMAN JACOBSON.