XXII.—ACCOUNT OF EGGS REPACKED AND SHIPPED TO FOREIGN COUNTRIES UNDER DIRECTION OF THE UNITED STATES FISH COMMISSION DURING THE SEASON OF 1883-'84.

By FRED MATHER.

## GERMANY.

On January 10, 1884, I received at Cold Spring Harbor, N. Y., several packages from Mr. F. N. Clark, superintendent of the Northville hatchery, containing 1,000,000 whitefish eggs, 25,000 brook trout eggs, and 25,000 lake trout eggs, all in good condition. I removed the eggs from the sawdust packing, picked out a few dead ones, and repacked them in ice. On the 12th they were shipped to Herr von Behr, president of the Deutsche Fischerei-Verein, Berlin, in care of F. Busse, Geestemunde, by the North German Lloyd steamer Neckar. A letter from Herr von Behr subsequently stated that these eggs arrived in excellent condition.

On March 20 I received a box containing 12,000 eggs of the rainbow trout from Mr. Clark for shipment to Germany. These were too far advanced for shipment, many having already hatched on the way and died. I had in the hatchery a lot of the same species belonging to the New York fish commission. These had been received on March 21 from the Caledonia station, and were not quite so far advanced, although rather old for shipment abroad. I placed Mr. Clark's eggs in the trough, and in their stead packed and shipped the New York eggs on the North German Lloyd steamer which sailed on March 29. These eggs did not arrive in good order. At first Herr von Behr wrote that he did not think that a single egg would give a healthy fry, but afterwards said that they had done better than was at first anticipated.

## SCOTLAND.

On March 6 I received a package of 5,000 eggs of the landlocked or schoolic salmon from Mr. Charles G. Atkins, Grand Lake Stream, Maine, and repacked and shipped them to Sir James Gibson Maitland, Bart., Stirling. On the 8th of April I received a letter dated Stirling, March 21, 1884, containing the following report: "I am glad to inform you that the landlocked salmon ova arrived here in first-rate condition; only about twelve white eggs, ten of which were unimpregnated."

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## ENGLAND.

On April 14 I received 3,000 eggs of the rainbow trout from Mr. F. N. Clark, Northville, Mich., and on the 18th repacked and shipped them by steamer Assyrian Monarch to Edward Birbeck, esq., secretary of the National Fish-Cultural Association, London. The agents of the Monarch line informed me that the eggs would be placed in the beefroom (this line has chill-rooms, and carries great quantities of dressed beef to England), and the temperature of this room was said to be kept between 33° and 38° F. As the beef is not permitted to freeze, I thought this arrangement the very best that could be made, but a letter from Mr. Birbeck informs me that the eggs arrived frozen and dead.

## FRANCE.

At the same time of receiving the above-mentioned eggs I received 3,000 eggs of the rainbow trout from Mr. Clark, and on April 15 shipped them to C. Raveret-Wattel, secretary of the Société d'Acclimatation, Paris, by the steamer Normandie of the General Transatlantic Company. A letter from Mr. Raveret-Wattel states that the eggs arrived in most excellent condition.