

THE INTERNATIONAL FISHERIES EXHIBITION.—SECOND PAPER.

THE International fisheries exhibition has thus far been successful to a degree which astonishes its most sanguine supporters. At least 200,000 people passed through the turnstiles during the first week. This number of visitors represents receipts to the amount of \$45,000, in addition to \$40,000 or thereabouts from the sale of season-tickets. The official catalogue is said to have cleared \$15,000 above its cost, through advertisements, before a single copy had been sold; and the first edition of 25,000 copies is nearly exhausted. The arrangements for lighting the exhibition galleries by the various systems of electrical illumination have not been completed, and the exhibition is now closed at 7 P.M.: when it is kept open until 10, the number of visitors will doubtless increase; for, in addition to the legitimate attractions of the exhibition, thousands will be induced to attend by the illuminations and music in the gardens of the Royal horticultural society, in which the exhibition is held. On the opening day, only the court and the holders of season-tickets were admitted. The next public day was Whitsun Monday, one of the half-dozen or more new 'bank holidays' which have recently been bestowed upon the British public by Sir John Lubbock's parliamentary bill. Not less than 45,000 people paid their shillings at the door, and at one time 8,000 entered in a single hour. The attendance on the following days was less; but on Wednesday, when admission-tickets cost half a crown, nearly 12,000 were present. It is evident that the entire liabilities of the executive committee, amounting to fifty or sixty thousand pounds, will be met long before the close of the exhibition in November. It is almost certain that the profits will be applied, as was done after the great exhibition of 1857, to some object of public educational importance. The press is beginning to urge that this shall be the establishment of a National museum of fisheries at South Kensington; and the action of the management of the South Kensington museum seems to indicate that such is their purpose, for they have appointed a committee of four to take charge of the interests of such permanent fishery collections as may grow up as a result of the exhibition. This committee consists of Edward Birkbeck, M.P., honorary general manager of the exhibition, Sir James Maitland, director of the South Kensington museum, Professor Huxley, and Dr. Day; and in its constitution must

certainly be satisfactory to the scientific men of England, who are complaining through the columns of *Nature* that this present exhibition differs from its continental predecessors in having been organized without the co-operation, to any very great extent, of the professional zoölogists of the country.

The readers of *SCIENCE* have already seen in the daily papers descriptions of the events at the opening of the exhibition on the 12th. The entire English court was present; and the gorgeous costumes of the royal family and their households, the picturesque garments of the foreign ambassadors and commissioners, the military and naval officers, the yeomen of the guard, the Queen's watermen, the English, Scotch, and Irish fishermen, the fishwives from Scotland, Belgium, France, and Holland, mingled with the bright decorations and the striking objects among which they were passing, made the scene very brilliant and impressive. The building devoted to North America contributed its contingent to the ethnological display of the day. Canada had a Melicete Indian in gala dress; the United States, a Carolina negro clad as a whaleman, besides numerous lay-figures of its fishermen in their customary dress, so lifelike in appearance that they were constantly mistaken by visitors for living men.

Science was very inconspicuous in this rainbow-hued pageant; but I noticed in the procession Professor Huxley, in the costume of Inspector of fisheries; Dr. Day, in the uniform of Surgeon-general; Professor Smitt, in that of the Royal Swedish academy of sciences; Professor Honeyman, Commissioner from Nova Scotia, in scholastic dress, with the scarlet cape of Doctor of civil law; and Baron de Solsky, Director of the St. Petersburg museum, his breast ablaze with decorations. The most imposing figure of all was that of Professor Richard Owen, whose venerable form, strong features, and flowing white hair, were brought out in strong relief, against the bright colors around, by his coat and skull-cap of black velvet.

On the evening of the opening day, all the officials and commissioners were entertained at a banquet in Fishmongers' Hall. The most noteworthy events of this occasion were the thoughtful speeches of the Prince of Wales and his brother the Duke of Edinburgh. The former had already tersely demonstrated his appreciation of the objects of the movement by the remark, "The purpose of this exhibition is to illustrate the present and past condition of one of the most ancient, exten-

sive, and important of industries, and to promote that careful collection and discussion of facts by means of which alone we can hope to deal in a satisfactory manner with the many difficult, practical, and scientific problems connected with fish and fisheries." At the banquet he laid especial stress upon the practical results which he hoped might result to the fisheries, and upon the importance of stimulating every possible scientific invention for the saving of life at sea.

The remark made by one of the speakers at the banquet — "that, by consenting to act as president of the exhibition, the Prince of Wales had done more than any man had ever done before for the fisheries of the world" — sounded strangely to an American; but, discounting the courtier element in this speech, the fact remains, that much of the success of the exhibition, and of its consequent possible benefit to Great Britain, is due to the active part which the Prince has taken in its interest.

The newspapers, from *Punch* to the *Times*, be they social, commercial, literary, comic, or scientific in their scope, are full of the exhibition. Many of them announce special numbers, or series of special articles, devoted to its discussion; while at least two periodicals, one an illustrated monthly, are established as its special exponents. The *Times*, which Emerson has told us thinks for all Englishmen, and 'is their understanding and day's ideal daguerrotyped,' gave an entire page on Monday to a description of the opening, and for several days has been printing editorials discussing the subject from various stand-points. It has printed a column article upon the exhibit of the United States, and promises two more special articles. In the first it is remarked, that, in variety and completeness of illustration, the collection from the United States is not surpassed by that of any of the foreign contributors. This verdict is confirmed by most of the editors, and in especially strong terms by *Land and water* and the *Field*, the two fishing-journals; the latter remarking, "The whole American court affords food for study, and, for completeness, is beyond comparison the best in the exhibition, whether as to fishing-vessels or fishing-gear." Especially gratifying is the letter sent to the *Times* by Gen. A. Pitt Rivers, the ethnologist, who draws attention to the fact that this is the only department in the whole exhibition which is arranged historically.

In the Chinese, Japanese, Scandinavian, and Dutch courts there are objects which the scientific student of the arts of life may pick out

and arrange in their proper order in his own mind; but in that of the United States, following the method adopted in the National museum at Washington, something more is attempted to bring the department into harmony with modern ideas. "Models showing the development of the art of ship-building have been arranged in sequence; the various contrivances for catching fish have been shown in association with the rude appliances of savages, from which they sprang; and the improvements and varieties of recent times have been placed as far as possible in chronological order. This gives to the exhibition a value which is apart from commerce, and an interest which is beyond the mere requirements of fish-culture; and it may be regarded as one out of the many indications of the way in which the enlightened government of the United States marks its appreciation of the demands of science."

The press is full of plans for the practical outcome of the exhibition. Some of the editors expect to see fish cheaper; some, to see the cheaper kinds of fish coming into general use; some, to see fish of all kinds more generally used; some, to see an immense increase in the yield of the fisheries; some, to see legislation stricter and more strongly enforced. Professor Huxley, when asked what his expectations from the exhibition were, replied that he had none at present beyond a general awakening of interest in fish-culture and the fisheries, from which, in time, some good would certainly result. The conference to be held in June, for the discussion of various questions of practical and scientific interest, will doubtless be one of the most important features of the exhibition. Professor Huxley will deliver the opening address; and the words of wisdom which shall then be uttered must necessarily have much influence in determining what are to be the benefits of this great international convention to Great Britain and to the world at large.

#### RECENT DEEP-SEA SOUNDINGS OFF THE ATLANTIC COAST OF THE UNITED STATES.<sup>1</sup>

THE explorations of the Gulf Stream, instituted by Alexander Dallas Bache, superintendent of the coast-survey, and carried on under his direction between the years 1845 and 1860, though necessarily to a great ex-

<sup>1</sup> Abstract of Appendix no. 19. Coast and geodetic survey report for 1882. Communicated by the superintendent of the U. S. coast and geodetic survey, Washington, May, 1883.