

this station, in artificially hatching the mackerel and tautog, indicate that the application of the methods of artificial propagation are capable of still further extension. At present the propagation of the lobster is of the greatest practical importance; and the possibility of feeding and caring for the young in large quantities till they have attained the length of one inch, when they practically abandon their pelagic habits and are able to take care of themselves, seems to be assured.

JOHN A. RYDER.

#### ROYAL GEOGRAPHICAL SOCIETY.

THE anniversary meeting of this society was held on Monday, May 24, with the president, the Marquis of Lorne, in the chair. The report of the council showed that 173 fellows had been elected during the year, besides three honorary corresponding members. The losses had been, by death 63 (besides one honorary corresponding member), by resignation 75, and by removal 21, making the net increase for the year 16. The total number of fellows on the list, exclusive of honorary members, on May 1, was 3,407.

The president said he considered himself most fortunate in that it was his duty to present to Mr. Phelps, as the representative of America and of his distinguished countryman, Major Greely, the queen's medal for this year. It was the sixth occasion on which a president of that society had greeted the achievements of a citizen of the United States with that honor. In the year 1855 it was accorded to Dr. Kane, who had charge of the expedition generously fitted out by the republic to search for Sir John Franklin. Again, in the year 1867, Sir Roderick Murchison, then president, was able to place in the hands of the American minister the gold medal given to another of his countrymen, namely, Dr. Hayes, who had reached a more northern point of land than any before attained. Dr. Hayes had himself been the companion of Kane, and was the discoverer of that very land, named after Henry Grinnell of New York, which had been the scene of the explorations of Major Greely.

The president then presented the patron's medal to Signor Guido Cora (*Science*, May 28).

The Murchison grant for 1886 was awarded to the brothers F. and A. Jardine, for their remarkable journey overland to the settlement of Somerset at Cape York (Queensland) from May, 1864, to March, 1865, during which they solved the question of the courses of the northern rivers emptying into the Gulf of Carpentaria, and definitely ascertained the area of the York Peninsula adapted for pastoral occupation.

The Back grant for 1886 was then awarded to Sergeant David L. Brainard, in recognition of the effective services rendered by him during the various explorations carried out by the American Arctic expedition of 1881-84.

The president remarked that the active work of the society during the past year had been largely directed towards initiating improvement in geographical education.

The report of the society's inspector, Mr. Keltie, describes the results of Mr. Keltie's visits to universities and schools at home and abroad for the purpose of inquiring into the position of geography in education: it had attracted much attention at home and abroad, and, it was believed, had been productive of good results. The interest excited by the society's recent action had been so great, and the expectation that they should continue it by taking some positive steps towards encouraging improvements in the position of geography in schools and universities was so general, that the council had felt encouraged, and indeed bound, to carry the scheme further. The educational committee of the society therefore made certain suggestions to the council, which were now under consideration, and would probably be adopted. The principal of these suggestions related to the appointment of a lecturer in geography, to deliver courses where the council might direct.

In order still further to encourage the scientific study of geography at the universities, the committee suggested that a prize or travelling scholarship should be given every alternate year to a student who had shown marked ability in geographical subjects, and who might desire to visit one of the less-known districts of Europe, or the Mediterranean or Black Sea shores, and any results to be communicated to the society. One or other of the annual grants which were at the society's disposal might be devoted to this purpose.

Another suggestion was aimed at reaching the intelligent middle and working classes through the medium of the university extension scheme. For this purpose a small annual grant was proposed. Another was that a medal be given by the society to the student reported by the examiners to have done best in physical geography in the first part of the natural sciences tripos (honors examination).

And finally, in order that all classes of schools might be reached, it was proposed that prizes be offered for competence in geography to the students at the various training-colleges. Here they reached the fountain-head of education; and, if they could secure adequate attention to geography in the institutions which sent forth yearly troops



of teachers to the board and elementary schools, the society would have accomplished much. It was perhaps characteristic of the absence of theory in the proceedings of the practically minded average Briton, that they who had done more as a nation to explore and colonize the distant parts of the world than any six other nations should have at home less instruction given in our schools on the subject of geography than was enjoyed by the youth of most of the European peoples.

The belief was expressed that the work of discovery had recently been aided by the Indian army in Burmah, and by the impulse given by Australia to the exploration of New Guinea.

The death of the British commissioner might have temporarily checked measures that would lead to the investigation of this latter country; but they might trust to the enterprise of Ford and other explorers, and to the activity with which Australasian commercial interests were pushed, for additions to our knowledge of an island of which it must with some shame be said that a few birds of paradise had hitherto represented its available export trade. With Baron von Müller as president of the Melbourne branch of the Australasian geographical society, they might be sure that the scientific aspects of the investigation of this magnificent new field would not be overlooked.

In Canada, again, Selwyn and Dawson and Macoun had been engaged in marking the value to science of the recent discoveries in geology, mineralogy, and meteorology made possible by the rapid completion of the Pacific railway across hitherto unknown mountain-ranges, whose ridges were the birthplaces of waters flowing into the Arctic, into Hudson's Bay, and the Gulf of Mexico. So valuable were the storm-signals to be derived from stations in the far north-west, that the American government had gladly placed the observations of nearly ninety stations at the disposal of the Canadian government, in return for those from about twenty in the British dominions.

The messages flashed from Toronto and Washington over the American continent and across the Atlantic had already been the means of saving many thousands of lives, and afforded the most practical recent proof of the immediate utility of scientific induction. The western points at which records were kept were spots wholly unknown to the geographer a century and a half ago.

There are few among our race, whether belonging to the nation of their gold medallist, Greely, or to their own, who would not place a higher value on the discoveries in that north-western

land than on those which should open to them access to the torrid zones. They gladly recognized the gallant efforts made by other races, notably by the Italians; and, while they gave the gold medal to him whom they might almost call their countryman, they were glad to recognize the aid given to their science by Signor Cora, and they condoled with Italy in the recent loss of the leader and members of the expedition recently massacred near Aden.

Having briefly reviewed the chief geographical events of the year, the Marquis of Lorne concluded by saying that the mere string of notes, telling of what in a twelvemonth had been accomplished, showed how quick was now the invading march of knowledge.

---

#### A FINAL BUFFALO-HUNT.

THE National museum has sent its chief taxidermist, Mr. William T. Hornaday, on a hunting-tour through the far west, for the purpose of obtaining specimens of the buffalo, before this animal becomes extinct in this country. Mr. Hornaday took with him as an assistant Mr. A. H. Forney, an attaché of the museum. The party reached Miles City, Montana, May 12. Some Crow Indians are said to have killed four buffaloes on the Mussel-shell River about six weeks ago. It is firmly believed by many good authorities that there are not now more than from fifty to one hundred buffaloes in the whole of Montana, outside of the National park, where there are probably from two hundred to three hundred head. Hunters lie in wait outside the limits of the National park, waiting for these animals to cross the line, when they lose no time in despatching them as soon as possible. A stampede may occur at any time, which may result in all the buffaloes now in the park leaving; and if such were the case, very few, if any, would escape.

Mr. Hornaday and his party were received by the commanding officer at Fort Keogh, and furnished with a six-mule team, a driver, and escort. The plan of route is to cross the Yellowstone at Miles City, proceeding up Sunday Creek and Hunter's Creek to its source; thence across to Big Dry River, following it down to the Big Bend; thence across and westward up Big Timber Creek; and eventually across to the Mussel-shell River, which it is proposed to explore almost its entire length. This route probably covers every chance for finding buffaloes in Montana or elsewhere. There is said to be a small herd of from eight to twelve buffaloes in south-western Dakota. This region is a vast, level, treeless prairie utterly