

skin: the latter he strings on a thong and rubs down on sandstone, like a Marquesas-islander. Feathers, however, are his greatest pride, and gaudy plumes of the woodpecker's crest, the duck's neck, and the blue-jay's plumage, are held at fabulous prices (22).

His music he draws from the whistle of bone, the rattle, and the drum; in his dances he carries a queer wand of basketry in his hand (21); sometimes he wears a 'spritsail yard' in the septum of his nose (20); he crushes vermin in his head with a spatula of elkhorn (18); and, finally, he has a fashion of putting very sharp pins of elkhorn in his hair (18a) to pierce the hand of the adversary.

Lieutenant Ray's collection is accompanied with an excellent descriptive catalogue, making his work for the national museum worthy of imitation. It has also the additional merit of explaining almost an equal number of nice old specimens that have been waiting forty years for an interpreter.

O. T. MASON.

GEOGRAPHICAL NOTES.

Europe.

The Russian government is planning an ethnographical survey of Russian Poland. This province has hitherto been much neglected by Russian scientists, and is, according to Professor Petri, not even included in the great 'Geographical statistical lexicon of the Russian empire.'

The construction of two canals in southern Russia is projected. The Duke of Leuchtenberg proposes to pierce the isthmus of Perekop. This canal would shorten the distance between Odessa and the harbors of the Gulf of Azov. The second project is far more important. The Russian government intends to connect the Don and the Volga by a canal, and the country between the rivers is being surveyed for the purpose. Thus, a waterway between the Caspian and Black seas will be established, and a new outlet opened to the produce of Asia. The project is a very old one, having been attempted by Peter the Great in 1696.

At the meeting of the Geographical society of Paris, Jan. 7, the Count of Saint-Saud gave a report on his surveys in the Pyrenees. Large tracts of these mountains are still little known, and Saint-Saud's researches will be a valuable contribution to our knowledge of the topography of that district. He discovered a mountain 9,500 feet in height, and corrected the position of some other peaks.

Feddersen, during his travels in southern Iceland, found the remains of large trees, which prove that forests formerly existed on that island. Dr. Labonne, who crossed Iceland from south to

north last summer, makes a similar statement. He found some remains of willows and birches about sixteen feet below the surface, embedded in the silicious deposits of the Geyser. These facts prove the correctness of the old 'Sagas,' which refer to forests in Iceland.

Asia.

P. Lombard, missionary in Siam, publishes, in the *Missions catholiques*, a map of the Menam, on which all settlements situated on the banks of that river are marked. The new information contained in this map is important, as Lombard has lived a long time in Siam, and has acquired a thorough knowledge of the geography of that country.

Africa.

Junker's exploration of the Welle makes its identity with the Obangi very probable. He crossed the river six times, and followed its course as far as latitude $3^{\circ} 13' 10''$, and longitude $22^{\circ} 47' 40''$. He found it to run east and west, with no part of it farther north than latitude 4° . The abundance of ivory found on the islands of this river is said to surpass that of any other part of Africa. Notwithstanding these new discoveries in this part of Africa, our knowledge of its hydrography is still very imperfect, and the exploration of the watershed between the Shari and Kongo still forms one of the most important problems of researches in Africa.

Captain Coquilhat, who visited Stanley Falls after the Arabs had taken possession of it, describes the moral impression which the loss of the station has made upon the natives, as follows: "The natives admire the persistent resistance of the whites. The losses of the Arabs, which amounted to sixty, while we lost only two men, made a great impression upon the negroes. They have seen and felt that the white man is not an ally of the Arab, and that they will find a support in him against their oppression. The manner in which the natives protected and saved Mr. Deane, the chief of the station at Stanley Falls, proves that they detest the Arabs, and that they desire to be governed by whites." However, these views seem to be somewhat sanguine. The loss of Stanley Falls is a serious affair to the association, and shows how little established its power is. It would be in vain to expect support from the natives, who consider both whites and Arabs intruders in their country.

The Kongo association is planning two expeditions; one, to determine the best route for the proposed railroad; the other, to explore the Kongo and its tributaries. The latter will be composed of geologists, agriculturists, and commercial

agents. Mr. Delcommune, who spent ten years at the factories and stations on the Kongo, will probably be its leader.

The announcement of Dr. Holub's death is denied by the latest telegraphic news. Holub left Austria a few months ago, with his wife and a few servants, to explore the country north of the Zambezi, and some weeks ago news was received that a European was murdered thereabout. It seems that this report gave rise to the rumor of Holub's death.

America.

The Geographical society of the City of Mexico announces its intention of resuming the publication of its journal, which was discontinued in 1882.

Dr. R. Bell's report on the Alert expedition to Hudson Bay, which is contained in the last 'Annual report of the geological survey of Canada,' shows how little is known of those countries. As the object of the expedition was the relief of the meteorological stations in Hudson Strait and Bay, Bell had no opportunity of leaving the ship for any length of time. However, his observations are the only ones we have referring to this vast district, and as he has carefully availed himself of every chance the movements of the ship gave him, he offers a great deal of new material. The author, who is thoroughly acquainted with the Hudson Bay Basin, through his extensive travels and numerous researches, gives a general sketch of the distribution of strata in Hudson Bay, and makes it probable that the whole of this vast basin is composed of flat-lying paleozoic strata. His observations lead him to the conclusion that during the glacial period an enormous glacier filled Hudson Strait, and flowed east towards the Atlantic Ocean. A southern branch seems to have come from Ungava Bay. It is very desirable that a geographical expedition to Hudson Bay be organized, as the coast is only known in its general outlines, and no scientist has ever set his foot on the greater part of these districts. Since Fox's journey to Fox Channel, only a few whalers have entered this strait; and the coasts, which are within easy reach from our harbors, and are of considerable importance on account of the whale, walrus, and seal fisheries, have never been explored.

Australasia.

The New-Guinea company's steamer *Ottilie* has ascended Augusta River, in the German part of New Guinea. It was found navigable for a considerable distance. Having sailed three days, the water was found to be too shallow to continue the journey in the steamer, which drew eleven feet of water. The party ascended the river two and a

half days farther in a steam launch, and returned only on account of the want of provisions. Measuring on a straight line, their farthest point was 156 nautical miles distant from the mouth of the river, and 74 miles from the north shore of the island. The existence of a navigable river of this size will be important for the development of the colony.

NOTES AND NEWS.

THE fourth annual catalogue of the Chicago manual training school is very encouraging. Although the regular school exercises were only begun in February, 1884, the total number of pupils enrolled is now 190. The course is a three years' one, and embraces instruction in mathematics, science, language, drawing, and shop-work, during the entire period. The requisites for admission are, that the candidate be at least fourteen years of age, and be able to pass a satisfactory examination in reading, spelling, writing, geography, English composition, and arithmetic. The school has a well-equipped wood-room, foundry, forge-room, and machine-shop, and ample apparatus for teaching the various subjects in which instruction is given. Under the efficient direction of Dr. Belfield, the successful future of this institution is assured.

— Perhaps no university chair in the world has had such a succession of distinguished occupants as has the Smith professorship of the French and Spanish languages and belles-lettres at Harvard. The professorship was established seventy years ago, and George Ticknor held it for nineteen years. His successor was Henry Wadsworth Longfellow, who held it for eighteen years; and James Russell Lowell, who has just resigned, held it for thirty-one years.

— In an account in *Modern language notes* for February, Mr. Calvin Thomas says that of the 176 names of those in attendance at the recent convention of the Modern language association at Baltimore, seventy per cent appeared to be English or American, and twenty per cent were obviously German. Of the total number in attendance, seventy-eight were teachers engaged in modern language work, and of this last number, sixty-five were engaged at colleges and universities. These sixty-five came from eighteen different states, as follows: from Maryland, 11; Massachusetts, 8; Pennsylvania, 8; Virginia, 6; Ohio, 4; South Carolina, 4; New Jersey, 4; New York, 3; Rhode Island, 3; Connecticut, 3; Indiana, 3; Michigan, 2; Kentucky, Louisiana, Delaware, Illinois, Tennessee, and Nebraska, each 1. These figures afford at least a rough criterion as to how far the