

deduce valuable facts with regard to Mexican history from the stone; but for further details we must refer to the lecture of Dr. Valentini, published by the American antiquarian society.

The first book printed in Cambridge, Mass., was an almanac, that the wise men of New England might not lead unguided lives; but no copy of the book is known to exist. We give, however, the title-page of an almanac published in 1785 in Boston, which shows the maker taking the altitude of a star with a cross-stick, which is nothing more than a cross-piece sliding upon a graduated stick, the observer bringing one end of the cross-piece on a line with his eye and the horizon, and the other end on a line with his eye and the star.

Almanacs contained considerable trashy information up to the early part of this century, when the British almanac and companion were published in 1827. The British almanac aimed to give a reliable calendar, and a vast amount of information which is generally hidden in census reports. It has been followed by Whitaker, giving similar information for the whole world, and by the American almanac, more especially devoted to American affairs. So it will be seen that the almanac first gave rules by which one might know every thing, and ended by telling us every thing we know.

EXPLORATION OF PUTNAM RIVER, ALASKA.

THE Ounalaska (Lieut. G. M. Stoney, U.S.N., commanding) arrived in San Francisco, Oct. 25, having completed the exploration of Putnam River so far as the time allotted would permit. The river was explored by a steam-launch three hundred miles, when rapids were encountered; then a canoe was taken, and towed by hand about eighty miles farther; and from this point a short portage brought a portion of the party to the head waters of one of the northern tributaries, which was fed by two large lakes. A mountain near one of these lakes furnished a view far to the eastward, up the main valley of Putnam River, and showed it flowing in undiminished volume as far as the eye could reach. The natives reported, that seven days' journey farther up the river there was a great lake, looking like a sea; and it is thought that this is the source of the river. There is little doubt that the river has its origin as far east as the British possessions, and probably near to the Mackenzie.

Putnam River empties into Hotham Inlet just north of Selawik Lake and to the south-east of Kunatuk River. There is a large delta at its mouth stretching back about forty miles, which is pierced by over one hundred channels, one of which is about one mile in width. The river is navigable to boats drawing from five to six feet of water, up to the rapids. Here the water flows at about ten knots per hour. The river and most of its tributaries lie within the arctic circle. Most of the tributaries are from the north, and they are generally shallow but rapid-flowing,

while the water is very cold; in some instances the observed temperature being 38°, while in one case it was 33°. Only one considerable branch was found flowing from the southward. This is called the Pali River by the natives, and it is used by them in journeying to the south; for a very short portage from its source enables them to reach one of the northern tributaries of the Yukon River, and they are thus brought in easy communication with the trading-posts. It is believed that like easy portage can be made from the Putnam to the river discovered by Lieut. Ray near Point Barrow, and which empties into the Arctic Ocean.

The country about the Putnam is mountainous. Long ranges extend along either side; but they are peculiar in existing in small, detached groups, each of which possesses distinguishing characteristics, some being clearly defined, sharp, rocky peaks, while others are smoothly rounded. The higher ones are estimated at about three thousand feet. From the tops of those which were ascended, the whole country to the north appeared to be a confused mass of mountain peaks, and the natives stated that the country was of the same character to the Arctic Ocean.

The country explored was found to possess a warm and agreeable summer climate, the thermometer having reached 115° in the sun, while the nights were cool. The valley of the Putnam is heavily timbered with spruce, birch, cottonwood, larch, and willow; while flowers were in abundance, roses being seen in large numbers. Cuttings of these latter, together with specimens of coal, gold, and copper, and a huge fossil trunk, form a part of the material collected for the Smithsonian institution.

While Lieut. Stoney was absent, Ensign Purcell remained with two men in charge of the schooner, and made a survey of Hotham Inlet and the Selawik. He found that the Selawik River represented on the charts has no existence; but there is a channel, six miles in length, connecting Selawik Lake with a chain of three lakes to the eastward. He also found a five-fathom channel over the Hotham-inlet bar.

The Ounalaska is a fifty-four ton schooner, and Lieut. Stoney was provided with two officers and a crew of eight men. There were no naturalists with the expedition.

While returning from his expedition, Lieut. Stoney encountered several severe gales. During one of the most severe he employed oil for stilling the waves, with marked success. The oil was rigged upon a spar to which a drag was attached, and the vessel was so manoeuvred that the drag stood off the weather-bow. The vessel holding the oil was so constructed that the oil was forced out in portions by each advancing wave. All the waves were affected by the oil, but the great foaming combers most markedly.

THE BIRD-COLLECTION OF THE U. S. NATIONAL MUSEUM.

IN the register of specimens belonging to the bird department of the National museum, which records

the complete known data of every specimen received, the number 100,000 has been passed.

This collection is by far the most complete of any, in the representation of North-American birds and those of the West Indies; while, of South and Central American birds, only two collections — those of Dr. P. L. Selater and Messrs. Salvin and Godman in England — excel it. These are superior in the number of species represented, but are decidedly inferior as regards the number of specimens; the aim of the museum being to acquire series which will illustrate the important subjects of geographical distribution and variation, thus furnishing material for those investigating the higher branches of the science. In Australian, Japanese, and European birds the collection is also tolerably complete; but of African, Asiatic, Indo-Malayan, and Polynesian species, there are still many important deficiencies. These, however, are being rapidly filled by exchange and otherwise, so that a fair collection of old-world birds is only a question of time. It may be explained, with regard to exotic birds, that the chief aim of the museum is to acquire representatives of, first, the higher groups not represented in the American fauna; second, genera and species allied to American forms; and, third, typical species of the more distinct genera within each family.

The extensive and unique collection of birds now possessed by the museum has grown from the private collection of Professor Baird, consisting of three thousand six hundred and ninety-six specimens, mostly collected, prepared, and labelled by Professor Baird and his brother, William M. Baird, from 1839 to 1851, but embracing also many, if not most, of the types of Audubon's works, presented to Professor Baird by Mr. Audubon. The catalogue of this collection, in Professor Baird's handwriting, forms volume i. of the museum registers of the bird-collection, which now comprises eighteen volumes, containing a full record of every specimen. In the case of specimens which are the parents of eggs collected, the museum register number of the latter is given in a particular column; while in the egg register the number of the parent, if in the collection, is given in a corresponding place.

The great bulk of this collection is in the form of unmounted skins, arranged in insect-tight drawers, the contents of which are, as far as practicable, marked on the outside; the arrangement being so systematic that any specimen in the entire collection can be readily found within five minutes of the time it is called for. The number of specimens in the mounted or exhibition collection is, for several reasons, necessarily small. In the first place, the cases available for their exhibition are in every way unsuitable, being old and badly constructed, admitting freely both dust and insects, thus rendering it a great risk to put valuable specimens inside of them. Were suitable cases provided, the number of specimens which the public could view might easily be increased from six thousand (the number, approximately, now on exhibition) to fifteen thousand or more, without materially weakening the 'study

series,' or putting in the cases specimens of no interest to the general public.

Labels designed with special reference to the needs of the non-scientific public are being prepared for the mounted specimens, and will be attached to them as soon as possible.

Ornithologists will rejoice that Professor Baird has lived to see the gradual development of a grand national collection from the humble nucleus upon which it was built. The pleasant associations which his memory, no doubt, recalls, must be no less a source of happiness to him than the opportunity of witnessing the important and far-reaching results of his boyhood studies. All wish for him the satisfaction of realizing the consummation of the plans conceived during his maturer years, not the least of which, perhaps, may be the perfection of a national establishment for the study of natural history, which shall be alike attractive and instructive to the general public, and accessible to the special investigator, under the auspices of a government which should take pride in fostering and maintaining a natural-history museum such as no other country can boast.

As being more than any living person, entitled to the privilege, specimens numbered 100,000 closing the first century of thousand, and 100,001 commencing the second, are entered as donations from Professor Baird. They were collected in 1850, and presented to Professor Baird by Mr. George N. Lawrence of New-York City, to whom belongs the honor of being the oldest active American ornithologist, and an associate of Professor Baird in his classical work on North-American birds published in 1858.

ROBERT RIDGWAY.

OVER-PRESSURE IN SCHOOLS.

THE subject of over-pressure in schools is being seriously agitated in many European states. In England the discussion just now is related to the report of Dr. Crichton-Browne upon over-pressure in the Board schools of London. This gentleman was invited by Mr. Mundella to examine the schools from his stand-point as a medical expert, and report his observations and conclusions as to the effect of the system upon the health of the scholars. As eventually issued by the education department, the report is accompanied by a memorandum from the pen of Mr. F. G. Fitch (one of her Majesty's inspectors), who severely criticises Dr. Browne's method of investigation, his arguments and conclusions. The press has entered upon the controversy with considerable ardor, so that over-pressure and Dr. Crichton-Browne are topics of the day.

The characteristic features of the English Board school system, the rigid arrangement of subjects and standards, the government inspection, the complicated scheme of examinations, and the payment by results, are unlike any thing that is known, or that would be tolerated, in America; nevertheless, the two systems have certain tendencies in common. In both, the animating impulse of the schools is derived