men, bearded, and carrying fire-arms, not Europeans, coming annually to the mouth of the Columbia to procure dye-woods, and occasionally to carry off slaves. M. de Quatrefages revives this narrative with notes and comments, arriving at the following conclusions: 1. Neither when du Pratz was in Louisiana nor when he published his book was there sufficient geographical knowledge to invent the story told by Moncatch-Apé; 2. The voyage was really accomplished; 3. The truth of Moncatch-Apé relative to waters, productions, inhabitants, etc., renders his story about bearded white men plausible; 4. The agreement of his account of the bearded white men with that of Basil Hall and others, concerning the people of Loo Choo, leads to the presumption that they were speaking of the same people; 5. Therefore, anteriorly to the advent of Europeans, the mouth of the Columbia was visited by this people. It is best always to allow writers to speak for themselves, and to stand or fall on their own merit. But it does seem that the distinguished anthropologist is grasping at a straw. — (*Rev. d'anthrop.*, (2) iv. 593.) J. W. P. [634

The report of Professor Baird. — Although all the matter of the Smithsonian annual report has been in the printer's hands a year, the preliminary portion, or report proper, has just appeared, and the volume, or appendix, still drags its slow length along. Under the guardianship of the Smithsonian institution are to be found several quite distinct enterprises; such as the International scientific exchanges, the Museum of archeology, the National museum, the Fish commission, and the Bureau of ethnology. A full account of the operations in each of these departments will be found in the report of Professor Baird. Here we shall speak of anthropology only. During the year 1881, Mr. S. T. Walker explored Indian mounds and graves in Florida; Judge J. G. Henderson of Illinois completed his investigations of the mounds of that state; Mr. S. B. Evans and Mr. F. A. Ober conducted some explorations in Mexico; Mr. L. Guesde of Guadalupe sends a portfolio of beautiful water-color sketches of West-Indian polished-stone implements, with descriptions; Mr. Nelson adds to his already splendid collection of Esquimaux culture-objects. Mention is made of the following publications: Bransford's Antiquities of Nicaragua, the Annual report of 1880, and Vol. xxiii. of the Contributions to knowledge. The work of the ethnological bureau in 1881 included the explorations of Mr. Cushing, Col. Stevenson, Dr. E. Palmer, Mr. W. J. Taylor, Mr. S. T. Walker, Major Powell, Mr. Mendeleff, Mr. J. K. Hillers, Tichkematse, and George Tsaroff. — J. W. P. [635

INTELLIGENCE FROM AMERICAN SCIENTIFIC STATIONS.

GOVERNMENT ORGANIZATIONS.

National museum.

Invertebrate fossils of Brazil. — The museum has received from Museu nacional of Brazil, through Dr. Orville A. Derby, the first set of duplicates of the invertebrate fossils acquired during the recent geological exploration of that country. The collection comprises about seventy species of fossil gasteropods, the greater proportion of which are now being described for the first time, together with other invertebrates equally interesting.

Lectures upon materia medica. — A course of eight lectures upon materia medica, based upon and illustrated by the collection in the national museum, will be delivered by Dr. D. Webster Prentiss. The course will open on the 7th of April, and be continued on consecutive Saturdays. Admission will be by ticket.

Naval bureau of ordnance.

Gunnery. — A series of experiments has been commenced at the Naval experimental battery near Annapolis, Md., with the breech-loading steel rifle recently completed at the South Boston iron-works.

With a charge of 25 pounds of powder, and a projectile weighing 68 pounds, a muzzle-velocity of 1,996 feet per second has been attained, with a pressure in the bore of the gun of but 27,000 pounds per square inch. This gun has a calibre of six inches, a bore fifteen feet in length, and is capable of withstanding an internal pressure of 55,000 pounds per square inch. Considering the conditions of chamber-space (920 cubic inches), length of bore, and weight of projectile, the results are unsurpassed by any hitherto obtained abroad. — J. M. R.

Annapolis, March 21.

Ordnance experiments. — The experiments with the new six-inch rifle have been continued this week by Lieut. Commander W. M. Folger, who is in charge of the experimental battery at this place. Yesterday a projectile weighing 68 pounds was discharged with a muzzle velocity of 2,130 feet per second, the charge of powder being 32 pounds, and the pressure 30,720 pounds per square inch. The velocity was ascertained by means of two Le Boule chronographs working independently, the difference between the results recorded being only a few feet. — J. M. R.

Annapolis, March 23.

Department of agriculture.

Contagious diseases of animals. — The subject of the prevention and cure of contagious diseases of animals has for many years been considered in this country. For a long time, extirpation was resorted to, and with good results; notably in the work of the commission appointed by the state of Massachusetts in 1860, which entirely succeeded in freeing that state of pleuro-pneumonia. Of late years, inoculation or vaccination has been employed with such success abroad, by Pasteur, that we are justified in anticipating the most beneficial results from the prosecution of his methods in this country. Pasteur has been engaged in efforts to establish some law, through the agency of which such diseases as pleuro-pneumonia, charbon, foot and mouth disease, and other diseases of domestic animals, could be controlled and cured. Dr. D. E. Salmon has been pursuing similar experiments under the direction of the department, though necessarily in a more limited way, and has met with such success that he has great faith in the result of the more elaborate and extensive experiments which he is about to undertake in the District of Columbia. Commissioner Loring has determined to place at the disposal of Dr. Salmon the necessary land, buildings, animals, and apparatus, to enable him to make the proper microscopical observations, and to carry on any experiments that will tend to establish some economical method by which our farmers or breeders may control the diseases of their animals. Dr. Sal-

mon is of the opinion that such diseases as Texas fever, charbon, and pleuro-pneumonia, are the results of germs which he has found in his post-mortem examinations, and that it is possible to protect unaffected animals from these diseases by dilute inoculation.

The precautions which the government has taken to prevent the importation of infectious diseases from abroad, by the establishment of quarantine stations, are praiseworthy, and it is of the greatest importance that proper regulations relative to the transportation of infected cattle from place to place should be adopted; but it is manifestly of far greater importance to ascertain the laws which control the diseases themselves, and to discover some cheap and obtainable means by which the farmer can protect his herds when attacked.

PUBLIC AND PRIVATE INSTITUTIONS.

Peabody museum of American archaeology, Cambridge, Mass.

Stone graves of the Cumberland valley. — In what was formerly an extensive cemetery covering several acres, at Brentwood, Tenn., eighty graves which had not been disturbed were opened during explorations the past summer. These graves were made by placing slabs of stone edgewise, forming the sides and ends of the graves; and on these, other flat stones were placed after the body was deposited. The bottoms of these cists were sometimes lined with small stones, but oftener with large potsherds. In some instances the lining was probably of bark. In several of these graves, two or three, and even, in one instance, five bodies were buried. In two graves, besides the skeleton of the person for whom each grave was made, one or two bones were found belonging to a second individual, in such positions as showed that they had been carefully placed in the grave. In one grave containing five skeletons, two of the three adult crania had persistent frontal sutures; and these were the only crania, in all the eighty graves, presenting this peculiarity. One adult skull had an extra suture, dividing the parietal of the left side into two nearly equal portions. This skull was also remarkable for the extreme occipital flattening, and great development of large Wormian bones; also for the absence of the two lateral incisors of the upper jaw, which, if they were ever present, must have been lost early in life, as all signs of the alveoli, or of wide gaps between the teeth, were obliterated. Many bones bearing evidence of simple inflammatory disease, but none of any specific taint, and several showing united fractures, were also found.

The pottery resembles in type that from the Missouri graves, but is, as a whole, of better finish. There were no large and coarse vessels in the graves, although the large fragments of thick pottery with which the bottoms of many graves were lined show that large vessels were made. The pottery from the stone graves consists principally of water-bottles of various shapes, small food-dishes, and bowls. Some of these are ornamented by incised lines, and others by designs in colors. Among the stone implements found were a large and finely polished celt of chert, several long chipped points with serrated edges, and a few arrow-heads, one of which was found embedded in a dorsal vertebra of the skeleton in the grave. Several implements and ornaments made of bone were obtained, among them two long bone pins with large, flat heads, — both found close to skulls, suggesting that they were probably used for hair-ornaments; also a number of shell and terra-cotta beads, and a single carved disk of shell, resembling those previously found in the stone graves of the Cumberland valley; together with a clay pipe having an ornamental bowl. Only eight pipes have previously been obtained in the several thousand graves which have been explored for the museum. Of these eight, three were of pottery, and the rest of different kinds of stone; one of the latter was elaborately carved, representing a man holding a cooking-pot which formed the bowl of the pipe.

An interesting discovery was made in the cemetery near the top of the hill, which at this place had gradually been gullied, and disclosed a mass of charcoal. On removing with a trowel all the earth about the charcoal, it proved to be the remains of burnt logs. A man was kept at work for several days following out the lines of charcoal and burnt clay; and after a time he succeeded in bringing to light, from under a few inches of clay, the charred floor-beams of a wooden structure of some sort. Within the enclosure formed by the charred logs were discovered a bed of ashes, a number of fragments of pottery, one perfect dish identical in character with those found in the stone graves near by; also a few burnt bones, two small discoidal stones, and two discoidal pieces of pottery. The logs had been supported by clay, which partly covered them, and thus prevented their total destruction when the building, of whose floor they formed a part, was destroyed by fire. About ten feet in length and five in width of this structure were traced, of which a drawing was made before any thing was disturbed. While stone graves were found on all sides, and within ten to twenty feet of the site of this structure, none were discovered under it; and there seems no reasonable doubt that these charred logs were the remains of a wooden structure of the period of the stone graves.

NOTES AND NEWS.

— In continuation of the work of establishing and verifying secondary meridians of longitude, Lieut.-Commander F. M. Green, assisted by Lieut.-Commander C. H. Davis and Lieut. J. A. Norris, U.S.N., under the direction of the Bureau of navigation, has determined a chain of geographical positions, commencing at Madras, in British India, and extending through the China and Japan Seas to Vladivostok, in Siberia. The stations occupied were Vladivostok, Yokohama, Nagasaki, Shanghai, Amoy, Hong-Kong, Manila, Cape St. James, Singapore, and Madras.

In measuring differences of longitude, the method adopted was in all cases to establish portable observatories in each of the two places between which the measurement was to be made, connecting the observatories with the telegraph-offices by short lines; so that the two observers were in telegraphic communication with each other. The errors of the chronometers on local time were then determined by means of numerous star-transits, and the chronometers were compared by repeated telegraphic signals sent both ways over the cable. The latitudes were determined by zenith telescope observations of pairs of well-determined stars.

A full account of the work, with details of the observations and computations, has been prepared, and will be published by the U. S. navy department.