

respects so novel as to offer no precedents, wholly new to those on whom the burden of the execution of the plan must fall,—as well as the great expense of the undertaking, have been subjects of long and thorough consideration by the council. These difficulties account for the delay in replying to the last communication of the commissioners. Their deliberations have finally brought the council to the assured conviction that it would be neither feasible nor wise to attempt to begin the three proposed divisions at the same time; and yet it is obvious that the work of the society in building up the department of Natural History Gardens should not be delayed. Although the sites proposed for the Marine Aquarium and the Fresh Water Aquarium will not be ready for occupation for some time, nevertheless it is the unanimous opinion of the council that the undertaking should begin with the Marine Aquarium. The proposed site of this division, the less proportionate expenditure for installation and maintenance, and its general interest to the public, combine to make it likely that it can be made a financial success, and thus contribute to the foundation and maintenance of the other departments.

In order to meet these difficulties and make a beginning without unnecessary delay, the council suggest the propriety of starting a temporary marine aquarium on grounds already under the control of the commissioners, and therefore respectfully inquire of the park commissioners whether the establishment of a temporary aquarium at the Marine Park in South Boston would meet with their approval; and, if so, what part of the grounds and water-front now at their disposal could be allowed the society for that purpose.

The pumps, piping, and specimens would of course be serviceable for removal to the buildings and grounds of the permanent establishment; and, if thought advisable, it might be practicable to construct even the temporary building so that it could be taken down and rebuilt in another place, or easily removed to a new site.

A temporary garden of respectable proportions would require only a limited sum for buildings and machinery, and would probably prove remunerative; the society could also begin operations sooner, if a limited sum devoted to such uses could be asked for; and they could thus effectively start the work of exciting public interest in favor of their plans for the establishment of a fresh-water aquarium and a New England zoological garden, and probably advance with surer steps toward the establishment of these two divisions of the Natural History Gardens.

In view of these considerations, the council of the Boston Society of Natural History ask the approval of the park commissioners to the following proposition: namely, that they shall be allowed to begin operations as soon as they have raised a third part, more or less, as may be needed, of the proposed sum of two hundred thousand dollars, for the purpose of erecting and equipping a building for a temporary aquarium at Marine Park, on land to be granted by the commissioners of parks; said sum to be ultimately incorporated with the two hundred thousand dollars to be raised by the society for the establishment of the Natural History Gardens, but for the present, and as long as the temporary aquarium exists, to be considered as belonging to an independent foundation.

Little has been said about buildings in this communication, because it has been considered essential first to settle what the council as scientific men and the commissioners in their official capacity, both being equally interested in the cause of public education, would deem it best to do; and, second, because in all such undertakings the true basis should be sought in the exposition and teaching of principles. As will be seen, however, by all those who have followed the history of this undertaking, the plans have been made with due consideration of the advantages offered by the localities proposed for the three divisions; and their unique character and extent are fully justified by the unequalled opportunities offered by the commissioners for the founding of these great institutions, devoted to the entertainment and instruction of the people in the system of parks under their jurisdiction.

We hope to publish next week some account of the action taken by the Boston Society of Natural History at its meeting on April 2.

## STAMMERING.

IN the *Provincial Medical Journal* of Feb. 1, 1890, is an anonymous letter from a physician, himself a victim to this unpleasant habit, which contains so many points of practical interest that portions of it are here reproduced from the *Medical Analectic*.

"Having lately received several circulars from different professors who advertise their secret methods for the cure of stammering, I have thought that a personal experience might be of interest and value. I shall not attempt a learned physiological analysis of the nerve-centres and nerves involved in the different muscles, and sets of muscles, in stammering, but rather aim at a simple statement.

"Since twenty years of age, I have been, though not wholly, yet fairly free from the trouble. In my earliest remembrance of speech, and all through my boyhood, I was a terrible stammerer. I have only heard of two epileptics in my family,—one a woman, a first-cousin; the other a boy, a second-cousin,—both on the father's side.

"The occasions on which I have stammered for thirty years past, and yet stammer, are about as follows: from habit acquired in travel, and in India, and to save the legs of the maid, I prefer to go out of my room, and call to the maid for what I may want. For two years I had a favorite maid called Mary. It was in vain for me to attempt to call out 'Mary!' My lips would compress, the upper teeth seizing the flesh inside the under lip. The word would not come without extreme and painful effort. But there was one way towards perfect relief: I always called 'O Mary!' i.e., I placed a vowel-breathing before the consonant, and thus unlocked the complex and inharmonious co-ordination of brain, nerve, and muscle involved in the production of *m*. In reading a lecture before a public audience, a terrible word is 'method.' Within the last ten years my upper teeth have made wounds inside the under lip in getting out this word. I naturally avoided the ridicule of inserting a vowel-sound before an audience. Another occasion on which I am still constantly bothered is in saying 'good-morning,' as I am shown out of a front-door by master or maid: something unduly glues my tongue over the *g* in 'good.' I get over this difficulty by bringing into operation another mental act, and the action of a different set of muscles, by the act of lifting my hat. I can say 'good-morning' without stammering while in the very act of lifting my hat. Here the same principle is involved as in putting a vowel before *m*: spasm of certain muscles is relieved by diverting nerve-energy to other channels and other muscles. Again: if I feel that I am about to stammer in any word, I try to substitute another word. Often in public reading, if I avoid the difficult word by some substitution, the same difficult word may recur many times, and I can speak it with little or no difficulty.

"If I am reading a lecture in public which is legibly written, and if I have previously read it aloud to myself, I shall stammer little or not at all: in other words, I do not stammer when the nervous system is calm. Similarly, if, speaking in a public discussion, I confine my mind to one simple point at a time, I do not stammer; but if the mind, in its active tumultuousness, sees too much or too widely the other possible relatives of the subject, and a fear of want of clearness comes over the mind, then my speech is full of stammering.

"The points which have seemed to me important toward avoiding stammering are to seek nervous calmness. If this be not attainable by the will, the sufferer can do something to divert the *præ* or present spasms; such as drawing in the breath, always keeping the lungs well filled with air in speaking, walking up and down the room, moving other parts of the body by an act of will, taking up a book or ornament, etc. I have made it a strict rule never to seek to force myself to say the difficult words, but stop and use another word or substitute some other words immediately preceding the difficult one. The sufferer should read aloud when alone both poetry and prose. Stammerers rarely stammer in reading poetry aloud when alone: the mind and nerves by poetry are induced into harmonic rhythm

just as they are by dance-music, and irregular action is prevented. The words which the stammerer finds most difficult when in society, he will find easy enough, especially in poetry, when reading aloud in his chamber. I do not think that he should practise on these words except when alone and in the most calm way: he needs rather to read naturally as it comes, to forget that he stammers, and, by practice of natural reading and speaking aloud when alone, to educate the just co-ordination of the nerves, etc. I found it best to walk to and fro in my chamber while reading aloud."

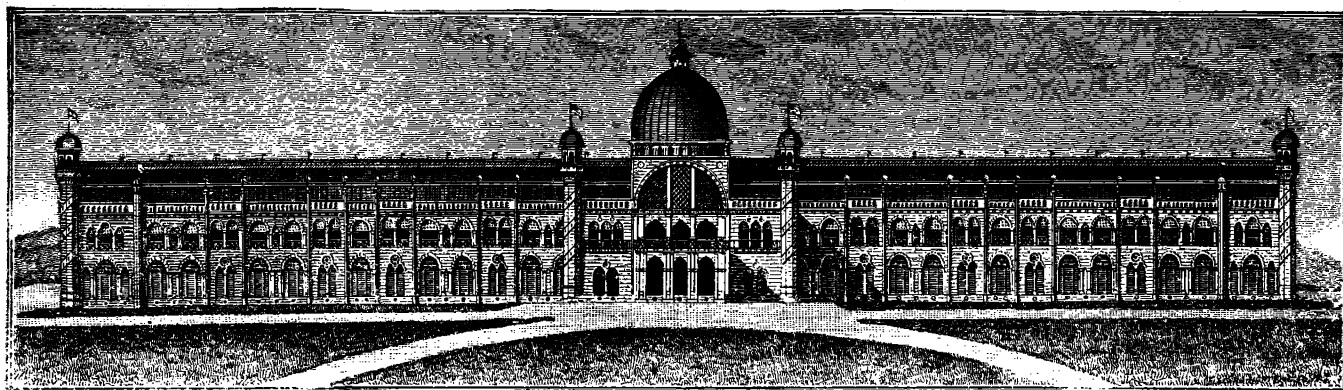
#### JAMAICA INTERNATIONAL EXHIBITION, 1891.

WE again would call attention to the international exhibition which will be held in the Island of Jamaica in January, 1891, under the auspices of the Government of Jamaica. The exhibition building, shown in the illustration, is 511 feet long, with a transept 174 feet in length. The breadth across nave and aisle is 81 feet, and the height is 59 feet.

In view of the very considerable and increasing trade between the United States and the West Indies, the committee have appropriated a large space for American exhibits, and consider this an opportunity which those who are interested in introducing American manufactures and extending the export trade of the United States should not fail to take advantage of. No charge

ment provided, so that those who attend may combine relaxation with profitable work.

— The following notes on icebergs and field-ice in the North Atlantic have been prepared principally from information obtained by Ensign Hugh Rodman, U.S.N., during his recent trip to Halifax and St. John's. By January the body of the ice interfered seriously with transatlantic navigation, and its general southern limit was found in latitude  $45^{\circ}$  north, longitude  $48^{\circ} 30'$  west. By February it had reached latitude  $42^{\circ} 30'$  north, longitude  $49^{\circ} 30'$  west, and at present it is in latitude  $41^{\circ} 30'$  north, from  $50^{\circ}$  to  $56^{\circ}$  west. This extreme southern position, in January, is about two months in advance of the average. The Dundee whalers that passed last summer in Greenland waters reported, on their arrival home in October and November, a very open season in the Arctic, with more bergs than had been seen in previous years. By August and September these bergs had reached the coast of Labrador, and were seen in great numbers in their regular southerly drift in the Arctic current. This would account for their appearance near the transatlantic routes in December and January. The past winter has been the most severe, both as to temperatures and winds, that has been experienced for years in Labrador and Newfoundland. Ice in the Gulf of St. Lawrence has rendered navigation in those waters impossible, and the outflow to the southward through Cabot Strait has sent large fields of heavy ice in almost a continuous stream to the southward and westward since January. Much of



JAMAICA INTERNATIONAL EXHIBITION BUILDING.

will be made for space in the exhibition buildings, nor will duties be levied on any of the exhibits unless sold in the island. The geographical position of the island and the salubrity of the climate will undoubtedly attract a large number of visitors from the neighboring islands and South and Central America, as well as from the United States. There is constant and regular communication by steam between New York and Jamaica, and the island is also connected with the United States by cable. In addition to the present accommodations for visitors, a large hotel has been recently erected and opened near the exhibition grounds, under American management. The railroad system of the island, which has been recently taken over by an American company, is rapidly being extended. The regulations of the committee, and full information as to the mode of shipment, rates of freight, and marking of exhibits, and all other particulars as to the scope and object of the exhibition, will be furnished by the secretary to the committee for the United States, Thomas Amor, 280 Broadway, New York.

#### NOTES AND NEWS.

THE next annual meeting of the American Society of Microscopists will be held in Louisville, Ky., Aug. 12 to 15 inclusive. There is such activity on the part of the officers of the society, and such interest has been shown by many Southern microscopists, that a large meeting is quite assured. An interesting programme will be perfected and a pleasant entertain-

this ice is four or five feet in thickness, rough, rafted, and closely packed. Field-ice, especially when rough, is more affected by wind than by current, while with bergs the reverse is the case. From this it is evident that the drift of the bergs could have been foretold some months ago, had early reports been received; while the drift of field-ice can best be predicted by telegraphic or other reports that come in promptly to a central office, where weather-charts are at hand to indicate the force and direction of the wind. Following the ice made on the Labrador and Newfoundland coasts comes the Arctic field-ice, heavier and more dangerous than the former, and its arrival is daily anticipated. The quantity of field-ice to the southward of  $44^{\circ}$  north will probably grow less from this time on, though vessels entering the fields should keep a sharp lookout for heavy, deep-blue, low-floating pieces of ice, called "growlers," that appear as fragments of bergs, or the advance pieces of Arctic ice: these mingle with the coast-fields at this time, and are especially dangerous, as they are hard to distinguish. Through the exertions of the Hydrographic Office, co-operation has been effected with the lighthouse service of Newfoundland, from which monthly reports of ice and weather will hereafter be obtained; with the sealing fleet, which will probably first sight Arctic field-ice; with a number of whalers who spend each summer in the Arctic; and with the Labrador and Newfoundland fishing-fleet. From these sources, and with a hearty co-operation of masters of vessels sighting ice at sea, there seems to be no reason why, in future, the position of the ice cannot be predicted by the Hydrographic Office with still greater accuracy than hitherto.