

THE AGASSIZ ASSOCIATION.

THE benefit accruing to science from the humble work of those who endeavor faithfully to popularize its teachings is not always recognized by the investigator. Yet such work, though looked down upon by many not taking the trouble properly to inform themselves, is worthy of no doubtful recognition. An excellent example, perhaps second to none in this country for its success and beneficial results, is the founding and conduct of the Agassiz association, which held its first general assembly last summer in Philadelphia. The origin and plan of the association are the work of one man, Mr. Harlan H. Ballard. The society was first a local institution for youth at the Lenox (Mass.) academy, of which Mr. Ballard is principal. It proved so successful in promoting a love for the study of natural phenomena, that he conceived the idea of making the experiment more generally useful. An invitation to form a general association was answered with such unexpected enthusiasm, that over seven hundred local branches have now been established, and more than eight thousand children and grown people enrolled within four years. As the idea was in part suggested by the success of a similar society of boys and girls in Switzerland, the American association has been very appropriately named after Louis Agassiz, whose sympathy and earnest work in behalf of popular education has made his name historical in both Switzerland and America.

The association was originally planned for the benefit of the young. It was speedily ascertained, however, that its methods of encouraging study by out-door collecting, by subsequent talks, and by arranging exchanges with others, were much more effective stimulants than had been imagined; and other teachers besides the principal of Lenox academy found them useful in their schools.

By the regulations of the association, chapters may be established by a few persons, four being the minimum limit; and age having been wisely left out of account, many families

have formed separate chapters. In some cases single persons of mature age, living in remote places, have found its advantages such that they have been admitted as correspondents. The voluntary labor of students in various departments has been secured, so that chapters and correspondents can obtain the information they need at first hand; and the extensive correspondence to effect this result has been conducted without charge by Mr. Ballard. By the co-operation of the editors of *St. Nicholas*, a monthly report is printed in that journal, without expense to the association. The magazine has thus become instrumental in helping to support the association, and deserves all the honor and credit won by such good offices.

Classes for the systematic study of elementary botany, entomology, anatomy, and physiology, have been formed under the leadership of competent teachers, and conducted by correspondence. Self-help and independent exertion are in this way made necessary for every isolated chapter, and this is systematically encouraged by all the influence of the leader of the association. Much good must have been already done in this way in direct opposition to the whole tendency of the ordinary training of the schools, and we are much mistaken if both pupils and teachers have not in many cases been greatly benefited by their experience in this really higher class of educational work.

We are told by the president, in his 'Handbook,' that the association is designed to be an extended free school of the natural sciences, open to persons of all ages and conditions. We cannot avoid a smile, however, when he adds that the association is intended to resemble the 'great school at Chautauqua;' for that school, with its large annual attendance and camp-meeting organization, is not one-tenth part so valuable to the intellectual interests of this country as either the Agassiz association or the somewhat similar 'Association for the promotion of home studies,' founded by Miss Ticknor of Boston. The conductors of these enterprises have done something permanent and effectual towards spreading a taste for

self-culture in an almost new sense, so far as the majority of people are concerned. They have shown that there is a practicable method by which the average intelligence and self-reliant character of the people outside of the schoolroom, as well as in it, can be effectively increased, and have taught thousands how to work with whatever means were at hand, not only for their own intellectual improvement, but for that of their children and neighbors. This must eventually affect the curriculum of the public schools through the creation of a demand for better and more natural methods of instruction. Indeed, if Mr. Ballard were to do nothing for the remainder of his life but carry on and perfect the system he has originated, and so extend the influence of his society, he could do nothing more desirable for the interests of science in this country, or more likely to secure future happiness and personal satisfaction for himself.

There is, however, in the path of this new organization, a certain danger arising from its necessarily intimate association with a publishing enterprise like that of *St. Nicholas*. Publishers and editors must do what will be profitable, and cannot afford too much philanthropy in their business. This spirit appears in the title, 'St. Nicholas Agassiz association,' as it stands upon the titlepage of the 'Hand-book.' The incongruity of names offends good taste, and does not accord with the purely unselfish nature of the whole enterprise. There is also a real cause for apprehension in one clause of the constitution, which places the appointment of his successor in the hands of the president and the editors of the *St. Nicholas*. Most persons will translate it as having but one object,—that of securing to the publishers and editors, in the future, whatever advantages may flow from the prosperity of the society. However pardonable and strictly honorable this may be from a business point of view, it is not consistent with the scheme of the association, and will finally excite comment and dissatisfaction. It might have been necessary to confine the power of appointment and election in a society of children; but this

association is no longer composed wholly of young persons, and has admitted large numbers of adults. The proprietors of *St. Nicholas* have a chance to lay the whole society under obligations of a kind which such bodies of people, in our experience, have never failed to recognize with gratitude and appropriate acknowledgments. We should earnestly advise them to take advantage of their opportunity.

THE 'PORORÓCA,' OR BORE, OF THE AMAZON.

WHILE travelling upon the Amazon in 1881, I was fortunate in having an opportunity to observe some of the effects of a remarkable phenomenon which occurs at the northern *embouchure* of that river, in connection with the spring-tides. It is known to the Indians and Brazilians as the *pororóca*,¹ and is, I believe, generally supposed to be identical with the 'bore' of the Hugli branch of the Ganges, of the Brahmapootra, and of the Indus. I regret very much, that like Condamine,² who passed through this part of the country about 1740, I could not observe this phenomenon in actual operation; but the gentleman whose guest I was at the time, and upon whose boat I was a passenger, was fairly horrified at my suggesting such a thing, while his boatmen united in a fervent 'God forbid that we should ever see the *pororóca*!' and ever afterwards doubted my sanity. I venture, however, to give some of the results of my own observations, in order that those who in the future visit this region, concerning which so little is known, may be able to see, and establish as far as possible, the rate of destruction and building-up here being carried on.

I was upon a trip from Macapa, — a small town on the northern bank of the Amazon, and about a hundred miles from its mouth, — down the river to the ocean, and thence up the Rio Araguay as far as the last might be found navigable. The one inhabited place on the Araguay is a military colony, called the Colonia Militar Pedro Segundo. At Macapá I became acquainted with the then director, Lieut. Pedro Alexandrino Tavares, and was invited by him to visit the Araguay.

¹ This word, which is of Tupý or native Brazilian origin, is the one invariably used by the Brazilians. Father João Tavares says it is probably a frequentative form derived from the Tupý word *opoe*, which means 'to break with a noise.'

² Condamine was sent by the Royal academy of sciences, of France, to make astronomical observations in South America in 1735. His description of the *pororóca* is the one from which all references to it have been taken until now.