

American Continent, published in the current number of the "Proceedings of the Academy of Natural Sciences of Philadelphia," I give what I believe most unprejudiced critics will consider good reasons for doubting the full accuracy of Mr. Dall's measurements of Mount St. Elias (and Mount Fairweather). The reasons for this belief were republished by the editor of *Science* in the issue of that journal of Nov. 7, and need not be restated; but I may be permitted to add that they were formulated two months before the results obtained by Russell and Kerr were made known, which, unfortunately (for St. Elias), only too clearly prove the justice of my doubt, and fortify my statement that the true position of St. Elias is probably "after, and not before, the Peak of Orizaba."

Dr. Dall seeks to throw discredit on my analysis of his measurements by unfavorably criticising my work in Mexico, but I fail to see the relevancy of the citation. He accuses me of being "no geodesist," which I am pleased to admit; but then I am manifestly not far removed from the company of the distinguished naturalist of Washington, since he also sees fit to confess that he makes "no pretence to the character of a geodetic expert." When, however, Dr. Dall wishes to instruct me in the value and deficiencies of an aneroid barometer, I may perhaps be pardoned for looking to other sources for my information; and I would recommend to my learned friend that he acquaint himself more closely with the analyses of the workings of this instrument made recently by German specialists. I append herewith the results of various measurements made in Mexico, which speak for themselves.

#### Peak of Orizaba.

	Feet.
Humboldt (trigonometric).....	17,375
Ferrer (1796, trigonometric).....	17,879
Plowes, Rodrigues, and Vigil (1877, trigonometric).....	17,664
Von Müller (trigonometric).....	18,112
Ratzel (barometric).....	18,069
Kaska (mercurial barometric).....	18,045
Kaska (mercurial barometric, more recent).....	18,300
Doignon (?).....	18,332
Heilprin.....	18,205

#### Popocatepetl.

	Feet.
Humboldt (trigonometric, corrected to Mexican R. R. levelling).....	17,590
Glennie (barometric).....	17,884
Sonntag (trigonometric, with correction to R. R. levelling).....	17,660
Heilprin.....	17,523

#### Ixtaccihuatl.

	Feet.
Humboldt (trigonometric, corrected to R. R. levelling).....	15,702
Sonntag (trigonometric, corrected to R. R. levelling).....	16,951
Heilprin.....	16,960

#### Nevado de Toluca.

	Feet.
Humboldt (barometric, corrected to R. R. levelling).....	15,038
Height given by Garcia Cubas.....	15,020
Heilprin.....	14,954

The correspondences and divergences may be considered "merely accidental," if it so pleases the critic; but let us contrast with these Mr. Dall's "observations of a higher class" (as compared with previous measurements):—

#### Mount St. Elias.

	Feet.
From 69 miles.....	19,464
From 127 ".....	18,350
From 132 ".....	19,956
From 167 ".....	18,033
Russell and Kerr (1890, as reported in the daily papers) less than.....	15,000
La Pérouse (1786).....	13,000

Possibly the critic will consider these "trigonometrical" results as being also "merely accidental." Mr. Dall wrongly interprets me when he accuses me of broadly stating that the system of "extracting averages" is "delusive." What I object to is the "delusive system of extracting averages." I should perhaps have underscored the first word; but the context, it appears to me, ought to have made my meaning clear. When four measurements of a mountain (Mount Fairweather) give individual results of 15,085, 15,247, 15,447, and 16,009 feet, I fail to see how by any

correct system of extracting averages we can obtain "unanimity" in the general result. It is the making of this unanimity which is a delusion to me.

The scientific world will receive with interest the publication of the results of the recent expedition to Mount St. Elias, and I agree with Dr. Dall that it is best to await the official publication before building too high on preliminary newspaper statements.

ANGELO HEILPRIN.

Academy of Natural Sciences, Philadelphia, Nov. 15.

#### Strawberries.

It needs little proof to show that a a long-season strawberry is more desirable than one that yields all its fruit within a week. The great bearers are always among those with a long bearing season. A plant, like a person, can do more work in two weeks than in one. What we desire in a good variety is not only a large quantity of fruit, but also a regular supply during a reasonably long fruiting period. As to pollen-production, I do not think that this is quite as heavy a tax upon the vital energies of strawberry-plants as the Ohio Experiment Station tries to make us believe. Undoubtedly it requires some effort, but there is nothing in analogy to show that the process is an exhaustive one. Nature is quite lavish in the production of pollen. While it is true that Haverland, Warfield, and Crescent—all imperfect-flowering varieties—may be safely put down as our most prolific sorts, this fact may be due to mere accident as much as to "division of labor." I have frequently seen the perfect-flowering Sharpless, Pearl, Capt. Jack, even the Wilson, and others, out-yield by a great deal the best on the list of imperfect-flowering (pistillate) varieties. The Long John, a perfect-flowering sort which originated here twenty or more years ago, has for the past two years equalled, or rather out-yielded, even the far-famed and truly wonderful Haverland.

T. GREINER.

La Salle, N.Y., Nov. 12.

#### Structure of the Plesiosaurian Skull.

IN his recently published "Manual of Paleontology" (p. 1067) Lydekker makes the statement, in his definition of the *Lynaptosaurian* branch, that there are "no ossifications in the sclerotic of the eye," and repeats it in his yet more recent "Catalogue of Fossil Reptilia." Upon this authority, I stated in my recent letter to *Science* that sclerotic plates had not been previously described for this branch, including the *Chelonia* and *Sauropterygia*. This is not correct, as Dr. Baur kindly informs me. He says, "Sclerotic plates are present in the *Testudinata*, as mentioned by Huxley and Hoffmann. I have found them in *Pleurodira*, *Cryptodira*, and *Trionycha*."

I do not wish to say that this character, and certain other ones, such as the co-ossification of the jaws, absence of parietal foramen, etc., are of high classificatory value, but rather that their discovery will require a revision of definitions hitherto given.

S. W. WILLISTON.

Lawrence, Kan., Nov. 12.

#### AMONG THE PUBLISHERS.

THE issue of *Garden and Forest* for Nov. 12 opens with an article on the use of the axe in plantations of ornamental trees. This is followed by an illustrated account of some insect enemies of fruit trees, by Professor Smith, entomologist of the New Jersey Experiment Station. *Celastrus articulata*, a Japanese relative of our climbing bitter-sweet, is described by Professor Sargent, and an excellent figure of the plant accompanies the description. Mrs. Treat writes instructively of evergreens in the pine barrens of New Jersey; and articles on chrysanthemums, asters, and other late-flowering plants, help to make the number seasonable and attractive to every lover of a garden.

—The first edition of "Scientific Lectures," by Sir John Lubbock (London and New York, Macmillan), appeared in 1879. The second edition, now before us, is, so far as we are able to judge, but a reprint of the former. The subjects treated are flowers and insects, plants and insects, the habits of ants, and an introduction