

reference to nomenclature. How much of genuine good-feeling and exchange of courtesies existed under cover of this public hostility is known only to the botanists themselves. Every one desired a stable nomenclature, but the conservatives held so doggedly to the old, and the radicals ran so persistently to the new, that the result was chaos. It was speedily found that "good usage," which was founded upon individual opinion, could never bring stability in face of the fact that scores of botanists felt equally competent to stand for "good usage."

The culmination of all these upheavals came in the famous book of Otto Kuntze, which looked like the end of all things to conservatives, and even made the radicals stand aghast. Kuntze wrought better than he knew, and has undoubtedly been largely instrumental in inducing a common movement among European and American botanists to attempt to secure some basis of agreement. His book will probably stand as a good example of what-not-to-do in matters of nomenclature. The International Congress of Botanists at Genoa (Sept. 4-11) was a favorable opportunity for presenting the matter, and hence the almost simultaneous appearance of papers from Berlin and New York and Washington for signatures.

At the meeting of the American Association at Rochester (Aug. 17-24) an unusually large number of botanists who deal with nomenclature were present, and they had with them (by letter) the opinions of nearly all who were absent. Not only was the representation very large, but the willingness to concede for the sake of agreement was remarkable, no such fraternal feeling being anticipated by the most sanguine. The discussions were full, free, and informal; every shade of opinion being presented and carefully considered. The principles that were finally adopted were not numerous, and additions will undoubtedly be necessary, but they were adopted with wonderful unanimity, and must commend themselves to anyone who studies them and who understands the forces that were at work in formulating them. Probably not a single individual opinion is fully expressed by these principles, but that resultant of opinions, which must be a far more influential thing.

The selection of 1753, the date of the first edition of Linnæus's "Species Plantarum," as the common point of departure for genera and species, seemed to be conceded almost without debate. This is no place to discuss the many very important considerations which urge the selection of this date; but it will certainly bring a feeling of stability in generic names that no other selection could have brought. It at once remands to silence all that region of uncertainty which necessarily lies beyond the time when species definitely stood as representing genera.

The fixity of the specific name has long been recognized as a working principle, and the only objection has been to making it an *ex post facto* law. But this would at once make two points of departure, and the changes are not so numerous after all.

The homonym section is also a wise one, as chiefly becomes apparent to those who have been compelled to reinstate an old group and so turn adrift and nameless some other group that may hold no relation to it.

It is probable that the section defining what is meant by the publication of a species will be the only one that will meet with criticism. To most of the botanists at Rochester, however, the definition strongly commended itself. The criticism will not be directed at what the definition contains, but at the fact that it omits the distribution of named specimens. This omission, however, can only touch chiefly comparatively recent distributions, for the names of the older classical ones have surely long since been protected by some form of publication which comes under the provisions of the section. The mixture of material under a single number in large distributions is not only well known, but probably to be expected, especially among plants in which the characters are microscopic. Herbarium names are also a great bar to the study of systematic botany, now that it has become a democratic thing, and a provision which compels all specific characterization to be widely accessible is a reasonable one.

It is to be expected that all American botanists will gladly use these principles, as it will remove a feeling of uneasiness in their work, a feeling which has sometimes compelled some of them to

make sure of their species by mentioning the names they would bear under the different systems of nomenclature.

Names are things of secondary importance, and the long discussion of non-essentials has seemed wearisome to many, but disputes are usually about non-essentials, are always wasteful of energy, and should always be adjusted.

CURRENT NOTES ON ANTHROPOLOGY.—XIV.

[Edited by D. G. Brinton, M.D., LL.D.]

The Selection of Comparative Vacuaries.

THE student whose investigations lead him to the comparison of languages and dialects is constantly impeded by the absence of any uniform schedule of words employed by travellers in securing specimens of them. This is one of the many points on which it would be most desirable that some international agreement could be reached.

The colonial department of the German government has recently published a schedule of about 800 words, which will be adopted by its officers and explorers. The list has been prepared by the eminent linguist, Professor Georg von der Gabelentz, and is published by Mitler & Son, Berlin, under the title "Handbuch zur Aufnahme Fremder Sprachen." It is prefaced by a series of practical observations and directions which will prove of much utility to the collector.

Our government has also an official schedule of words published through the Smithsonian Institution. It is a monument of colossal misconception of purpose and theory-hunting. The terms for kinship alone number 1476, and contain such as the following: "My mother's elder sister's daughter's daughter's husband!" Instead of being a convenient octavo, which one can slip in his pocket, as is the German, it is a bulky quarto of 250 pages, much of it taken up with quite useless matter. I venture the assertion with confidence that no collector has ever filled up its blanks.

Primitive Man in South America.

The doubts expressed in these "Notes" as to the age of some of the recent discoveries of anthropoid remains in South America (see *Science*, March 11) have been echoed with force by M. E. Trouessart in an article in *L'Anthropologie* for June. The hypothesis of a miocene man in the area of the Argentine Republic or Patagonia, advanced by Ameghino and others, has received a rude shock through the researches of Professor C. Steinmann of Freiburg. According to him, the Pampean formation corresponds to the Loess of North America, and is inter-glacial in date, and not pliocene, as Doering and Ameghino teach; and their alleged miocene is merely a part of the great deposit of the Austral glaciation. This he believes occurred at the same time as the ice age of the northern continent.

This opinion seems to be borne out by a comparison of the fauna of the oligocene of Patagonia with that of the alleged miocene of La Plata. The differences are quite too great for them to belong so near together. Twenty per cent of the Pampean forms are still living species in the same locality, which would be enough to cast grave doubts on its high antiquity. Here, therefore, as in so many other spots on the American continent, the vast antiquity of the remains of man is materially diminished by closer scrutiny.

Race and Culture.

A recent pamphlet by Professor Frank W. Blackmar, of the University of Kansas, on Indian education, brings up the general subject of the attitude of the lower races toward the culture of the highest. This sociological study, carefully prepared from authentic statistics, substantially acknowledges that while in individual instances there is no intellectual inferiority in the Red Race, its members are unable to face the light of civilization and live. Even when educated they must be protected, especially against their own people, but also against the whites. His final words are:—

"The Indian must be drilled, trained, and placed in an occupation which offers protection on the one hand and restraint on

the other. Otherwise he will not be able to compete with the white race in the economic struggle for land or the political struggle for power."

This is a sad conclusion, but it is that which is supported by the history of both the Red and the Black races, and is that which is illustrated by the histories of so many of the Polynesian islands, where the circumstances were most favorable to the development of the best relations between the natives and the Europeans. The psychic traits of races are as unalterable as the shade of their hair, and inevitably for them define the future of their stock and limit its possibilities.

The Land Fu-Sang.

Now that the discussion of the various discoveries of America is in order, that which is referred to in Chinese annals as far back as the seventh century, in connection with the name Fu-Sang, should receive attention. It was first brought to the notice of scholars in 1761 by the French orientalist, De Guignes, and of course created some sensation. Various writers since then have warmly espoused his views, among whom may be mentioned in our own country Charles G. Leland and E. P. Vining, both of whom have issued volumes in proof of De Guignes's identification.

The *coup de grace* seems to have been dealt the theory by Gustave Schlegel in his book published in Leyden this year entitled "Fou-Sang Kouo; le Pays de Fou-Sang." He is a Chinese scholar of acknowledged competence, and takes up the story as recited in the original, with as many side-lights as he can bring to bear upon it.

The result of his researches is to knock every pin from under the notion that any part of America could have been intended in the description of Fu-Sang. As far as any real land can be discerned through the fog of exaggeration and fable which encircles the whole account, it is that of the island Krafft or Saghalien, and the people described resembled the Ainos more than any others. A variety of arguments are adduced to show that Mexico is out of all question; and therefore those fanciful archaeologists who have been ready to find Buddhistic elements in American religions will have to look for them elsewhere than in the legend of Fu-Sang.

Another Failure in Ethnic Osteology.

The trenchant criticisms of Professor Sergi of Rome have already been referred to in these notes. He has recently published another of these in which he attacks and apparently demolishes the favorite theories of Professor Kollmann of Basel, in relation to the analogy existing between the face and its members. The latter has long maintained that there is a constant correlation between the elements of the face of such a nature that to long faces correspond high orbits, narrow nasal apertures, and elongated palatine vaults; and to wide faces the converse of these characters; and that the types of races expressed in head-forms will be a composite of the cephalic and facial indices.

Professor Sergi arrives at quite a different conclusion. He points out from various series of skulls that in the purest types the craniological criteria vary very widely. In every race individual examples present the utmost diversity. As to any fixed correlation between the shape of the face and the facial indices, which is the *crux* of Kollmann's argument, it is a pure chimera. He presents a series of measurements, tabulated from African and American crania, which leave no doubt as to the accuracy of his assertions; and Dr. Collignon, who reviews his work for *L'Anthropologie*, accepts its conclusions as incontrovertible. This is another serious blow to that department of physical anthropology which has set up a few anatomical features as more important than those of language and mind, as criteria of peoples.

WE are informed that in view of the general interest awakened in the cholera, Dr. Klein's well-known little book on "The Bacteria in Asiatic Cholera," published by Macmillan, has been reduced in price to one dollar. Dr. Klein is lecturer at St. Bartholomew's Hospital, London.

LETTERS TO THE EDITOR.

**** Correspondents are requested to be as brief as possible. The writer's name is in all cases required as proof of good faith.**

On request in advance, one hundred copies of the number containing his communication will be furnished free to any correspondent.

The editor will be glad to publish any queries consonant with the character of the journal.

A Pre-Aino Race in Japan.

IN the Report of the National Museum for 1890, just issued, are two papers by Romyn Hitchcock, entitled respectively, "The Ancient Pit-Dwellers of Yezo" and "The Ainos of Yezo, Japan." In these papers he advances the idea, which he evidently thinks is new, that there was a race of people in Japan previous to the Ainos, and these people he identifies with the Pit-Dwellers of Yezo. He says, "it has been supposed that the shell-mounds were left by the Ainos. This is the opinion of Professor John Milne." Mr. Hitchcock further says, "It has recently been shown by the researches of Milne, Morse, Chamberlain, and others that Japan proper was once inhabited by a race of people different from the present Japanese, and from the comparison of the remains found in shell-heaps and kitchen-middens in many parts of Japan, even as far south as Kiushiu, with similar remains found in Yezo, it is thought that the Ainos once inhabited Japan." It is hardly necessary to inform Mr. Hitchcock that the writers above mentioned did not require the evidences of shell-heaps to convince them that the Ainos inhabited Japan, as historical records in that country fully establish the fact. I have always maintained, however, and in one case with an acrimony which I now regret, that all the evidences point to the existence of a race occupying Japan previous to the Ainos, citing these very shell-heaps as proof. I am not concerned with the fact that he has overlooked my views published at different times on the subject, but I do object most emphatically to being represented by Mr. Hitchcock as holding views directly the reverse of what I have repeatedly urged; and as the point of a Pre-Aino race in Japan, if established, is of some value, I do not intend to relinquish it unless other claims to priority can be shown. While Mr. Hitchcock has not taken the trouble to look up my papers on the subject, he cannot plead ignorance of my views, as he has made most ample use of a memoir by Mr. Basil Hall Chamberlain, published by the University of Tokio, and should have seen the following statements in that publication (p. 44). Mr. Chamberlain says: "Two theories may be held with regard to the former presence of the Ainos in Japan. One is that they have occupied the whole country before the arrival of the Japanese. This theory has been advocated by Professor Milne. . . . The arguments used by Professor Milne are chiefly derived from archaeological finds. . . . To his arguments, which should be consulted at some length, . . . it has been objected by Professor Morse . . . that there is no positive proof that the remains attributed by him to the Ainos may not have been left by some still older race." There is, therefore, no excuse for this oversight or blunder on the part of Mr. Hitchcock.

Fifteen years ago I sent from Japan a communication to *Nature* of London, entitled "Traces of Early Man in Japan." In this I said: "The examination of a genuine kjoekkenmoedding, or shell-heap, enables me to give positive evidences regarding a pre-historic race who occupied this island." And when I designated this race as pre-historic, I supposed every one familiar with Japanese history was aware of the fact that the Ainos had preceded the Japanese in Japan, as the Indians had preceded the English in New England. Hardly a popular book on Japan had failed to allude to the fact, quoting early records of the Japanese in proof of it. Over thirteen years ago I sent an article from Japan to the *Popular Science Monthly*, entitled "Traces of an Early Race in Japan." This was published in the January number, 1879, and contained numerous engravings. In this paper I said: "With every reason for believing that the Japanese came from the south, displacing the Ainos, who came from the north, the question next arises as to the original occupants of the island. Did the northern people encounter resistance from a primitive race of savages, or were they greeted only by the chattering of relatives still more remote, whose descendants yet clamber about