

The following notices, taken from various sources relate chiefly to the representatives from Canada :

ON THE VALUE OF PHYSICAL CONFORMATION AS AN ELEMENT OF ETHNOLOGICAL SCIENCE, BY DR. WILSON, OF TORONTO.

In treating this subject, Professor Wilson prefaced it by various interesting details relative to the ancient arts, and the indications of progressive civilization pertaining to very early, and unquestionably to ante-Christian periods, which have brought to light in the North of Europe. He then drew a comparison between these and the remains discovered under like circumstances in the British Isles, and pointed out the great value of such, as opening up to us entirely new chapters of European and British history, altogether prior to those which constitute the initial chapters of its written story. Such traces of primitive arts had been the subject of study and research in Britain long prior to the present time; but the inquirers proceeding on false premises, and guided entirely by preconceived ideas, chiefly derived from a too exclusively classical education, had missed the most important deductions, which we now owe mainly to the investigators of Copenhagen and Stockholm. But in addition to these purely archaeological evidences, the attention of distinguished Scandinavian naturalists had been directed to the osteological remains pertaining to the same period of Ancient Europe, and the results of the researches of Retzius, Nilsson, and others on the Continent, and various zealous labourers in the same track of discovery in the British Isles, had disclosed the former existence of a European race differing no less remarkable in certain features of physical conformation—shewn by the bones found in ancient graves—than they did in the arts practised by them, and the tools and weapons which they employed. One special characteristic disclosed by these ancient osteological remains is the form of the head, which the Professor described as square in form, having its longitudinal diameter very slightly in excess of its patristal diameter. This peculiar conformation he illustrated by sketches on the blackboard, and then drew a comparison between these crania and the skulls of the ancient race of Central America, as well as of those found in the great mounds of the Mississippi and Ohio valleys; pointing out, at the same time, several other respects in which the ancient osteological remains, both of Europe and this continent, differ from the Anglo-Saxon type. In doing so, Professor Wilson referred to the great work by the late Dr. Morton, of Philadelphia, on the crania of America, and an invaluable contribution to ethnology, and a monument of patient industry and scientific zeal, peculiarly creditable to this country. He next discussed the question raised by Dr. Morton, and since followed by others, as to an assumed general uniformity of physical characteristics pertaining to the whole native races of the American continent, both ancient and modern, with the exception of the Esquimaux. This he combatted, shewing that if the shape of the cranium was accepted as the test, the difference between the ancient race of Central America, or of the Mississippi Valley, and some of the modern Indian tribes, such as the Chippewas, exhibited nearly all the difference between brachycephalic and dolichocephalic crania, or, in other words, all the difference which is traceable between the remains of ancient and apparent extinct races of Northern Europe and the modern historic races. He then entered into comparative details, pointing out the most striking points of correspondence and difference; such as a certain tendency towards a conical or wedge shaped vertex appearing to be traceable to a great extent among the whole Indian occupants of the continent, and also a considerable uniformity in the bones of the face. Having discussed the points of agreement and of difference thus brought forward, the Professor proceeded to indicate their importance by drawing attention to the diversities unmistakable in the existing varieties of the human race, as in the negro, the Mongol, the Malay, the red Indian, &c. Some of the most noticeable of these, such as the character of the hair and color of the skin, are not traceable in the skeleton; but others, such as the cranial peculiarities of the negro, the prognathous jaws, the pelvis, elongated heel, &c., are markedly apparent. He next discussed the influence of the intermixture of diverse races, as shewn in the contrast between the modern European and Asiatic Turk, and as illustrated in so many ways on this continent, as in the Red River half-breeds, the Zambos of Resmaraldas and Rio Verde, and in our whole colored population.

The value of such facts in relation to ethnological science were unquestionable. In so far as they went they were, the Professor said, even more certainly reliable than the invaluable contributions of the philologer; for while language, if employed on this continent as an ethnological test, would frequently seem to reduce to nearly one homogeneous race the Anglo-Saxon, German, Celt, Spaniard and negro, the ethnic physical distinctions remained unimpaired. He therefore urged the accumulation of facts, and the in-

creased attention of ethnologists to this aspect of the subject, while he deprecated hasty generalizations, and crude or fanciful theories relative to the initial stages of ethnic development as premature, ill-timed, and calculated to retard rather than to advance the science.

This communication gave rise to a lively discussion, Professor Agassiz, Professor Dawson, of Montreal, Professor Anderson, of Rochester, and others taking a part in it.

Prof. Agassiz regretted that this subject could not be discussed without seeming to many to involve a religious prejudice. But he was bold to affirm that differences exist between the races of men, greater than do exist between animals of different species. Take the family of monkeys, our next cousins. The monkey family, as truly as the human race, constitutes a family—all monkeys sharing the same structural endowments, capabilities and propensities, even as men share theirs. The monkey family is a unity, even as the human family is—and no more so. *I never have denied the unity of the human family*; on the other hand, I insist upon it. Its unity is recognized in its physical, intellectual and moral endowments—the three points of superiority over all other animals that constitute its indivisible unity. And there is the same unity in the monkeys; in them the same identity of structure, instincts, wants. And yet the Orang, the African type of monkey, is so different from the Chimpanzee, the Asiatic type, that Zoologists make them two distinct genera. Now between the races of men there is a greater difference than between the Ourang and the Chimpanzee. For instance, nature seldom causes the relative position of the upper and lower teeth to differ in the individuals of the same genera; yet the teeth of the race of men do differ more than the teeth of these two genera of monkeys. That word species, said the Professor, very much distracts us, so loosely is it used. Let us not quarrel about words, however. Let us study conscientiously the difference between the races, and when they are found to be so great that one race positively could not be derived from the other, then it is time enough to inquire how they originated. In immediate prospect, however, for our investigation is the question of the natural bounds of the races. There are facts enough in the animal world to justify the expectation that we may *then* find that there were independent and repeated origins for men.

Principal Dawson, of McGill College, Montreal, took up the gauntlet. He spoke very modestly, but to the point. He did not waver in his faith that when our organic natures have passed away we should recognize in all men our brothers. Archæology, geology, ethnology had each in its turn been regarded by the believers in a revealed religion as threatening to overturn the Bible History, but each in its turn, as discoveries progressed, proved its indorser. And so zoology, he did not doubt, when more of its facts were manifested, would be found testifying with revelation that of one blood all the nations of the earth were made. He doubted the parallelism between the families of men and monkeys. It was the habit to refer species having the same distinctive characteristics to the same origin. Limitation in space was one of the most marked characteristics of species, as Mr. Agassiz insists. But animals of a high organization extend themselves, over the earth by virtue of the exercise of intellect. The monkey is indeed, closely allied to man in his structure, but the parallelism fails utterly in the limit of the range of the monkey and the man. In Africa we have the negro man and the negro orang. In Asia we have the Asiatic man and the Asiatic monkey, while in America we have the American man and the long-tailed monkey—similarity of circumstances utterly failing to produce between the American man and American monkey the similarity of structure that might have been expected from analogy. Again, man's range of limit is almost boundless—the monkey's is exceedingly narrow. Man extends his limit every hour, and with it he exchanges his characteristics, but animals do this to the very smallest extent only, and *man is the chief agent of the extension of their limit, and of the small alteration of their characteristics*. Any one species of the monkey is almost invariable, but man of every race is very variable. The Professor proceeded to illustrate by the varieties of the horse found in America, and said that if the historical testimony were lacking, horses, too, would be reckoned as of different species.

Mr. Agassiz protested against the method of argument. The doctrine of identity is not a scientific one but traditional. He did not reply to Prof. Dawson's argument, but added to the points of his previous parallelism. The debate was conducted in a masterly manner.

PROFESSOR CHERRIMAN'S PAPERS.

We regret that we are unable to do more than notice the very able papers of Professor Cherriman. With the exception of Professor Pierce, Professor