## AYMARA TYPE OF HEAD DEFORMATION IN THE UNITED STATES

THE "Aymara" type of head deformation was produced by the application of pressure by a circular band passing over the forehead and under the occiput in the newborn infant. It was practised extensively by the Aymara people of Peru and Bolivia, radiating from the Andes to the west coast, towards Chile, and up to the Atlantic coast in Argentina.

A deformation of the same fundamental type, but somewhat different in details, was practised so far as hitherto known in only one spot in North America, namely on Vancouver Island; no specimens bearing plain traces of it were ever recorded or known of from any other part of the northern continent.

In 1919, the U. S. National Museum received from Mr. M. C. Long, of Kansas City, Missouri, an adult female skull which had been found alongside the Missouri River "in rip-rap work" along the Missouri-Pacific tracks, near Lexington, Missouri. This skull, which is considerably mineralized, presents unmistakable traces of a moderate circular frontal compression, with a medium bulge above this compression, a secondary broad post-coronal depression, and some flattening of the lower part of the occiput—in other words a characteristic form of a moderate "Aymara" deformation.

On January 17, this year, the National Museum received from Mr. R. S. Knowlson, of Kansas City, the remains of a female Indian skull found under an overhanging cliff and in front of the entrance to a small cave near Noel, Missouri. This skull, which is not mineralized, shows also plain traces of a moderate "Aymara" deformation. The grade and type of the deformity are much like those in the skull from Lexington. Both differ in secondary details from the type found in Vancouver. Noel is about 180 miles south from Lexington.

The two skulls may precede in age the late prehistoric and historic Indians of Missouri, who practised no deformation. It would be premature to speculate on their identity; their discovery, however, in these regions is highly interesting and may prove of importance.

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## SCIENCE AND COMMERCIALIZED ATHLETICS

PROBABLY no member of the American Association for the Advancement of Science will dissent from the opinion that it is at times desirable to scrutinize the use of words and titles in common use and to attempt to follow their legitimate meanings and implications.

Is our "Association for the Advancement of Science" a passive or an active one? Is it restricted or comprehensive in its policy? Is it superficial or fundamental in its scope? What is the meaning of "advancement" as an object of its existence?

In this connection "advancement" means to me six things: first, improvement of environmental conditions for scientific work (anywhere and everywhere); second, increase in the number of competent scientific workers; third, increase in the usefulness (beneficial results) of science to the whole people; fourth, increase in the influence of science in human affairs; fifth, accumulation and intelligent use of funds for scientific purposes; sixth, promotion of mutual aid and mutual understanding amongst scientific workers in all lines with a view to substantial unification of the scientific world.

Again and again in the past twenty years some scientist (not to mention many other people) has recorded a protest against the growing menace of *commercialized* athletics in our educational institutions. Such protests have appeared in various scientific publications as well as in other places and many of them have also been delivered before scientific meetings. In SCIENCE for May 19, 1922, appeared a masterpiece of such protest from the pen of Professor Edward G. Mahin of Purdue University. I suppose that every member of our association knows the truth of his assertions and that almost all endorse his very moderate views and conclusions.

As a matter of fact Professor Mahin distinctly understated the case in two ways. In the first place he did not make distinct the point that the ordinary student is frequently or constantly harassed by demands for money for the use of the parasitic or predatory sporting element and that he is even more frequently disturbed by demands upon his time for "rooting" and other "support of the team."

That is to say, Dr. Mahin did not make it clear that from the moment they enter college most students are under drastic coercion tending to destroy their initiative, break their spirit and bring them into dull submission to destructive interests.

In the second place Dr. Mahin gave no attention to the bad condition in schools below university or college grade. Matters are bad enough in higher institutions, but, in truth, the mischief is often done before a youngster reaches college. He is discouraged by the outspoken contempt of the parasite for the "grind." He is impressed by the success of the bluffer or shirker supported by the sporting group. He is intimidated by the bluster or actual physical and social injury of the special interests in his school. He is made suspicious of the motives of other people. He is deprived of the poise and self-confidence so necessary in a good scientist. He is disgusted at the constant demand for money to support those creatures whom he knows to have no interest in either the school or in education.

I charge that the American Association for the Advancement of Science is derelict in its duty and false to its aims so long as it shuns active opposition to such evils. I also consider the association unscientific in its procedure when it tries to add to a superstructure while neglecting to repair its decaying foundation.

Dr. Mahin has clearly stated the ways in which *commercialized* athletics makes bad environment for scientific work. Most of us know cases in which science has been deprived of a competent scientific worker because of its evil influence. Every one of us can find evidence immediately at hand showing that *commercialized* athletics is conducted in open and contemptuous disregard of physical and mental hygiene. It is also true that *commercialized* athletics hinders accumulation of resources for scientific work and particularly diminishes the rewards of the scientific worker.

So much for the relationship of unhealthy amusement to "Advancement of Science." Personally I am intensely interested in the fact that the boy or girl who wishes to get a maximum of scientific training on limited resources is *coerced* into paying varying amounts of money and time and energy to the support of the socially and educationally and scientifically destructive activities of the sporting fraternity.

Individually or collectively 10,000 scientists ought to be able to exert a wholesome influence in these matters, not only for the good of science but for the welfare of our country. In fact it is disgraceful that such appeals as that of Dr. Mahin do not bring *action* as well as silent approval.

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## METHODS OF THE CARNEGIE INSTITUTION

TO THE EDITOR OF SCIENCE: President Pritchett's lamentations regarding the woes of the administrators of great benefactions are perhaps the natural reaction of a kindly, just and generous man who, in the nature of things, has to say "no" more often than he can say "yes." When the Carnegie Institution was first founded I wrote the following to SCIENCE (1902, xvi, 484):

> The scholarships should be allotted to laboratories the heads of which have shown themselves competent to do research work. It is a mistake to compel men, who are presumably competent, to reveal an outline of the subject to be investigated. The greatest discoveries are often accidental observations made by trained minds. The former product of their laboratories or of their personal work should be the criterion. In this way, if one line of investigation seems fruitless, the scholar can at will be turned in another course. Thus, the Carnegie Institute may endow but not control the course of science in San Francisco. There must be no limitation to the *akademische Freiheit*.

Consider one example in which this plan was followed, the endowment of the work of Osborne and Mendel, which resulted, among many other discoveries, in our knowledge of the production of xerophthalmia when butter fat is eliminated from a diet otherwise complete, and of its cure by administration of cod-liver oil or of butter fat itself. The two workers were individual scientists, one a university professor, the other a chemist in a state agricultural station. The money was conferred because it could be productive. The men were trusted absolutely. There were no conditions, no red tape, no general uplift organization with strict rules and regulations for conduct, no publicity department, no puffing, no visiting detectives, no superior intelligence to tell them