

Inter-College Sports Denounced

Psychology

The American college custom of sending out a small squad of highly trained athletes to do or die for *Alma Mater*, while the rest of the students, undertrained physically, yell for victory from the sidelines, was emphatically denounced in a recent address by Dr. Knight Dunlap, professor of psychology at Johns Hopkins University. Dr. Dunlap spoke before the American Physical Education Association.

"An important function of the college and university today is to furnish sport and amusement for the mob, thus linking our great educational institutions up with Hollywood and the municipal zoos," the psychologist said.

Urging investigation of the powerful force that inter-collegiate athletics have become in the past 25 years, Dr. Dunlap said that data should be gathered to compare the ranking of a university in its inter-college athletic prowess with its ranking in general ethical standards.

Reliable data should also be sought, he said, to show whether more men are excluded from teams since the colleges have demanded that their athletes measure up to certain standards in class work or be dropped from sport competitions.

"Knowledge of what a given grade

will do to a student always influences the grade that an instructor decides upon," he said. "It would be worth knowing whether the grades of athletes given by instructors much interested in athletics average higher than those given by instructors obtuse to college enthusiasms. This is not a question of instructional ethics, but merely one of instructional psychology."

Statistics should be gathered, he continued, showing to what extent men trained on college teams keep up outdoor sports after graduation, as compared with men who engage in more individualistic sports in college days.

As a substitute for inter-college sport battles, the psychologist suggested that the plan of having teams from the same college compete should be given a fair and careful trial, to see whether group consciousness and college loyalty and enthusiasm cannot be built up by some different system.

"Abolition of inter-collegiate athletics would be an unmixed blessing," the professor stated, adding that "no university administration and faculty group has felt able to initiate any drastic surgical operations, knowing the opposition of the alumni and the spinelessness of the

faculties generally."

Students flock to winning colleges in larger numbers and local alumni contribute more generously to them, he pointed out. But while a few husky students get too much physical development under the system, the majority who need it the most do not get it.

"Provision for tennis courts and golf links are in most institutions ridiculously small as compared with the total number of students. Of course, gymnasium work is prescribed, and military drill is elective or prescribed. But any one who supposes that these are substitutes for real sports I shan't bother to argue with."

The often heard argument that inter-college sports promote good feeling between colleges was hailed as "bunk" by the psychologist, who declared that in reality the students' one interest in the contests was to beat the opponent.

"The joy with which the mob in one institution welcomes the news that the rival team has been weakened by injury, death, or the rude action of an unappreciative faculty is merely one indication of the general attitude," he said.

Science News-Letter, June 2, 1928

Chemist Makes Synthetic Sugar

Chemistry

The synthesis of sugar by two Swiss chemists, Professor Ame Pictet and Hans Vogel, has aroused great interest among chemists. For this is a problem on which investigators have worked in vain for over fifty years because of its scientific interest and possible commercial importance. Sugar of the common sort, extracted from cane or beet, is easily split up, or, as it is called, "inverted," by weak acids, forming two other sugars. One of these is glucose, which is now manufactured in the United States from corn. The other half is fructose, which can be manufactured from Jerusalem artichoke as has recently been demonstrated here by the U. S. Bureau of Standards.

But to bring these two sugars to-

gether so as to form sugar of the common or table variety has hitherto been impossible. Professor Pictet has discovered that the difficulty has come from the fact that fructose exists in two forms identical in composition but differing in the arrangement of their atoms. By transforming the normal fructose over into what is called the "gamma" form he was able to combine this with an equal amount of glucose and get sucrose or common sugar. This he accomplished by first joining to each molecule of glucose and fructose four molecules of acetic acid, the acid of vinegar. After the two sugars have been combined the acid is easily eliminated by alkali.

Since this is a difficult and expensive process it could not be employed

on a commercial scale, but it is important as proving that it is possible to make sugar artificially and it suggests the possibility of inventing new kinds of sugar which are not to be found in nature. Some of them might prove to be sweeter than common sugar or safer for the use of diabetics.

Professor Pictet of the University of Geneva is now seventy-one years old and has long been one of the world's leading authorities on the constitution of sugar and cellulose. Within the last two years he has succeeded in synthesizing two other of the double sugars, lactose which occurs in milk and maltose which occurs in malt.

Science News-Letter, June 2, 1928