method, care being taken to have all the factors in the teaching alike except the point of difference that we were trying to reach. The results of the investigation were submitted to careful statistical analysis and showed that the method of teaching homonyms together was more efficient in the third, fourth, fifth, sixth and seventh grades.

It is hoped that experiments of a similar nature will be conducted in other schools, so that the validity of the conclusions of this experiment may be more accurately determined.

Psychological Experts in Public School Systems: The Experience of Chicago: Dr. D. P. MacMillan, Director of the Department of Child Study, City School System, Chicago.

Dr. MacMillan traced the idea of establishing psychological experts in public school systems, showing that the demand for this came from persons who were not psychological experts, although their cause was ably championed by Professor Royce in 1898 before the National Educational Association.

In Chicago this matter was under discussion by the Board of Education during the years 1896–8. Several plans were discussed, but it was finally decided to organize a special department of the board whose officers should devote their entire time to this work. This was done in 1899, and the functions of the new department were defined as follows:

1. Research work. (*a*) Collecting anthropometric and psycho-physical data for the purpose of establishing norms and for determining such relationship as may be of service in pedagogy. (*b*) Applying accurate scientific methods to specific pedagogic problems, particularly methods of teaching and determination of the pedagogic value of various studies.

2. Examination of individual pupils with the object of advising parents and teachers as to their pedagogic management.

3. Instruction of teachers in child study and psychology.

The work of the department during the ten years of its activity was then described in some detail, and it was clearly shown that it is altogether feasible for consulting psychologists to carry on within school systems the line of activity which educational zealots and far-sighted scientists entertained and projected for them. The general recognition of the value of establishing such departments is in line with the most modern and progressive tendencies in education, and if the plan were adopted by a number of the larger school systems, untold benefits to the public school system would result.

Objective Measurements of the Efficiency of School Systems: Dr. J. D. Burks, Albany Training School for Teachers.

Reasons for the Existence of Schools of Education in American Universities: Professor C. W. A. Luckey, University of Nebraska.

The average attendance at the meetings was forty. Much interest was shown in the papers, and many of them were discussed at length. It was the consensus of opinion that this opening meeting of the new section was a great success and that it augured well for the future of the organization.

C. R. Mann,
Secretary

THE AMERICAN FEDERATION OF TEACHERS OF THE MATHEMATICAL AND THE NATURAL SCIENCES

A meeting of delegates of associations interested in the formation of an American Federation of Teachers of the Mathematical and the Natural Sciences was held in

Chicago on January 1, 1908. There were present 23 representatives of 13 associations, as follows: Association of Physics Teachers of Washington City, 1; Association of Mathematics Teachers of New England, 1; Central Association of Science and Mathematics Teachers, 6; Colorado Mathematical Society, 1; Connecticut Association of Science Teachers, 1; Indiana State Science Teachers Association, 2; Kansas State Association, Mathematics Section, 1; Michigan Schoolmasters' Club, Mathematics, Physics and Biology Sections, 3; Nebraska State Association, Physical Science Section, 2; New England Association of Chemistry Teachers, 2; New York State Science Teachers' Association, 1; North Dakota Association of Science Teachers, 1; Northeastern Ohio Association of Science and Mathematics Teachers, 1.

In the absence of the chairman, the meeting was called to order by the secretary, and Professor F. S. Woods, of Boston, was elected chairman *pro tem.*

The minutes of the last meeting having been printed and distributed, their reading was dispensed with.

The report of the executive committee was then read and accepted. The recommendations in that report were taken up for consideration. In accordance with those recommendations, the articles of federation were slightly amended, passed *seriatim*, and then passed as a whole in the following form:

1. The associations of teachers of science and of mathematics shall form as soon as possible an organization to be known as the American Federation of Teachers of the Mathematical and the Natural Sciences.

2. Associations only are eligible to membership in the federation. Any association whose purpose is the study of the problems of science and mathematics teaching, and whose number of active members is twenty-five or more, shall be eligible to membership.

3. By joining the federation, an association in no way loses its individuality, nor its right to conduct its work in its own territory in its own way.

4. An association joins the federation by appointing delegates to a body to be known as the Council of the American Federation, by having its delegates accepted by the council, and by paying to the treasurer of the council the dues as specified in number 6.

5. Each association shall have one delegate for every fifty members; but each association shall have at least one delegate.

6. Each association shall pay to the council annual dues of five cents per member of the association, in order to defray the necessary expenses of correspondence by the council. The fiscal year shall date from September 1 each year. The council is authorized to increase the per capita assessment of associations, not to exceed ten cents, if found necessary.

7. The delegates shall hold office for three years and be eligible for reelection. At the time of its organization, the council shall divide its members into three classes, one of which shall retire at the end of each year. The council shall notify each association each year how many delegates are to be elected by it then.

8. The council shall elect its own officers, namely, president and secretary-treasurer, who shall hold office for one year and be twice eligible for reelection. These officers, together with three others elected annually, shall constitute the executive committee of the council.

9. The work of the council shall be carried on mainly by correspondence, but an annual meeting shall be held, at such time and place as the executive committee shall select. At any meeting the members of the council who are present shall constitute a quorum for the transaction of business; but if less than one third of the members are present, all business so transacted shall be ratified by correspondence.

10. The duties of the council shall consist in devising methods by which the associations may work together for the betterment of the teaching of science and of mathematics. The council shall act toward each association in a purely advisory capacity, no association being bound by the terms of the federation to follow the suggestions of the council if it does not wish to do so.

11. All publications issued in the name of the federation shall be approved and authorized by the executive committee.

12. The council shall publish each year a de-

tailed statement of receipts and expenditures, and a brief outline of the work done during the fiscal year. This statement shall be sent annually to the officers of each association in the federation.

On recommendation of the executive committee it was voted that, pending the report of the committee on policy as to publication, the executive committee be authorized to print the reports and documents of the federation in such of the established journals as it may select.

At the meeting in 1906 in New York no officers were elected, but only an executive committee appointed. The articles of federation having now been formally approved by the meeting, the following officers were elected for the year 1908:

President—H. W. Tyler, Association of Mathematics Teachers of New England.

Secretary-treasurer—C. R. Mann, Central Association of Science and Mathematics Teachers.

Additional Members of the Executive Committee—R. E. Dodge, New York State Science Teachers' Association; F. N. Peters, Missouri Society of Teachers of Mathematics and Science; J. T. Rorer, Association of Mathematics Teachers of the Middle States and Maryland.

It was announced that the application of the federation for affiliation with the American Association for the Advancement of Science had been approved by that body, and that this affiliation entitled the federation to elect a representative to the council of that body. On nomination, duly seconded, the president of the federation, Professor H. W. Tyler, was elected as the representative of the federation to the council of the American Association for the Advancement of Science.

The questions: What can be accomplished by the federation that can not be accomplished by existing machinery? and, What does an association gain by joining the federation? were raised and discussed at length. Instead of trying to reproduce this discussion, the executive committee is preparing a statement of the purposes and proposed policy of the federation, and this will be issued in the near future.

The meeting adjourned, subject to the call of the executive committee.

C. R. Mann,
Secretary

The University of Chicago

THE COLLEGE AND THE UNIVERSITY[1]

The American university of to-day is a compound of two divergent and more or less antagonistic elements, which in the current academic languages, we call the college and the university. The college is in theory a place for general culture, for training the mind, broadening the intellectual horizon, and, so far as may be, making, by tasks physical, moral and mental, a man or woman better fitted for the work of the world. The university is a place of training for one's specific duties in life. Its functions include training for professional work, whatever the profession may be. Its general method is that of instruction through investigation, and its relation to the student is in many ways different from the task-setting work of the college. It demands for its teachers a somewhat different talent, that of creative work, and of the power and the will in one way or another to add to the sum of human knowledge.

Our colleges are English in their origin. Our universities are German in their inspiration and method. Thus far in America the one has in a way antagonized the other. There has been a tendency to build up the university work by neglect of the collegiate work. Very many institutions have given instruction in professional or technical subjects of university grade to students who have had no collegiate training, often even no work of the still lower grade we call secondary instruction. On

[1] Extract from the Report of the President of Stanford University for 1906–7.