

tion from the physical side, the physicist can be appealed to *then and there*. That enables one to know what data either different or more of the same or relevant sort are to be sought. This is an advantage quite apart from that of having on hand a general stock, so to speak, of information about the water such as the systematic work of the physicist puts into the records.

As yet the station funds have not made possible a chemist and a chemical laboratory, but the addition of these in the not distant future is anticipated.

I may conclude by mentioning two other extensions of undertaking that stand to the credit of the present year. Miss Myrtle Johnson, of the station staff and a university student, has carried well forward a mensuration-mathematical study of growth and development of the zooids of the salpa chain. In this work Dr. J. Lipke, of the department of mathematics of the University of California, and Dr. Raymond Pearl, of Orono, Maine, have as a courtesy, rendered service without which the value of whatever results may be reached would be uncertain. Mr. S. E. Bailey, of the staff, has proven during the summer the practicability of determining with accuracy reaching to the fourth decimal place the weight of *Fundulus* eggs and embryos at various stages of development. The biological importance of investigations of this sort can not, I believe, be overestimated. This is no place to set forth the grounds of such belief although I may call attention to their obvious adjacency to such work as Minot in particular, has been doing recently on the weight of different animals at different periods of life.

Although the object of this communication is to indicate those aspects of the year's work that constitute a forward step in carrying out the general program of the Station, mention should be made of the

fact that tasks under way for several years have by no means been neglected. Dr. Torrey made good progress in the description of the pelagic coelenterata; Mr. E. L. Michael, resident naturalist of the Station, has nearly completed a paper on the classification of the Chaetognaths of the region, and the director did something on the systematic treatment of the littoral ascidian fauna. Mr. Maurice Nichols, of the department of botany of the University of California, devoted much labor to the description of the corallanes. The usual work was continued of preserving and recording all collections brought in, preparatory to making them available for the various specialists who will report on them.

WM. E. RITTER

LA JOLLA, CAL.,
July 25, 1908

THE NATIONAL EDUCATION ASSOCIATION,
IN CONVENTION ASSEMBLED AT
CLEVELAND, O., JULY 1, 1908,
DECLARATION

THE National Education Association, now holding its forty-sixth annual convention in Cleveland, and representing teachers and friends of education in every state in this union, makes the following declaration of principles and aims:

1. Fully realizing that trained and skilled labor is a primary essential to the industrial and commercial welfare of the country, we cordially endorse the establishment by municipal boards of education of trade schools, industrial schools, and evening continuation schools; and further recommend that the instruction in these schools be practical and efficient, and have the advice and the approval of the trade interested, to the end that graduates of these schools may at once become advanced apprentices or journeymen.
2. We recommend the subordination of highly diversified and overburdened courses of study in the grades to a thorough drill in essential subjects; and the sacrifice of quantity to an improvement in the quality of instruction. The complaints of business men

that pupils from the schools are inaccurate in results and careless of details is a criticism that should be removed. The principles of sound and accurate training are as fixed as natural laws and should be insistently followed. Ill-considered experiments and indiscriminate methodizing should be abandoned, and attention devoted to the persevering and continuous drill necessary for accurate and efficient training; and we hold that no course of study in any public school should be so advanced or so rigid as to prevent instruction to any student, who may need it, in the essential and practical parts of the common English branches.

3. We assert that the individuality of the pupil should be carefully considered, to the end that he may be instructed in the light of his limitations and capacity; and we commend to all local authorities the necessity of greater care in the arrangement of courses of study, that they may be adapted to the pupils to be instructed, rather than that pupils should be adapted to fixed courses of study and an inflexible system of grading.

4. The public high schools should not be chiefly fitting schools for higher institutions, but should be adapted to the general needs, both intellectual and industrial, of their students and communities, and we suggest that the higher institutions may wisely adapt their courses to this condition. We also suggest to school boards and superintendents the importance of securing for their high schools teachers who have not only abundant scholarship but also successful experience in teaching or efficient and practical training in pedagogy.

5. There is concededly a grave moral depression in our business and social atmosphere. The revelations of the financial and legislative world for the past two years denote a too general acquiescence in questionable practices and standards. We earnestly recommend to boards of education, principals and teachers the continuous training of pupils in morals, and in business and professional ethics, to the end that the coming generation of men of affairs may have a well-

developed abhorrence of unfair dealing and discrimination. The establishment of the honor system in schools, the ostracism of the dishonest or unfair pupil, the daily exemplification in the routine life of the school of the advantage of honest and truthful methods, are commended to the especial attention of teachers as a partial means to this end.

6. The Bureau of Education at Washington should be preserved in its integrity and the dignity of its position maintained and increased. It should receive at the hands of Congress such recognition and such appropriations as will enable it not only to employ all expert assistants necessary, but also to publish in convenient and usable form the results of investigations; thus making that department of our government such a source of information and advice as will be most helpful to the people in conducting their campaigns of education. We are of the opinion that the importance of the subject under its control, and the dignity of this country require that this Bureau be maintained as an independent department of the government.

7. The National Education Association notes with approval that the qualifications demanded of teachers in the public schools are increasing annually, and particularly that in many localities special preparation is demanded of teachers. The idea that any one with a fair education can teach school is gradually giving away to the correct notion that teachers must make special preparation for the vocation of teaching. The higher standards demanded of teachers must lead logically to higher salaries for teachers, and constant efforts should be made by all persons interested in education to secure for teachers adequate compensation for their work.

8. It is the duty of the state to provide for the education of every child within its borders, and to see that all children obtain the rudiments of an education. The constitutional provision that all tax-payers must contribute to the support of the public schools logically carries with it the implied provision that no person should be permitted to defeat

the purposes of the public school law by forcing their children, at an early age, to become bread winners. To this end the child labor and truancy laws should be so harmonized that the education of the child, not its labor, shall be made the chief concern.

9. The National Education Association indorses the increasing use of school buildings for free vacation schools and for free evening schools and lecture courses for adults, and for children who have been obliged to leave the day school prematurely. We also approve of the use of school grounds for play grounds and the use of school gymnasiums and bath rooms for the benefit of the children in the crowded districts during summer.

10. Local taxation, supplemented by state taxation, presents the best means for the support of the public schools, and for securing that deep interest in them which is necessary to their greatest efficiency. State aid should be granted only as supplementary to local taxation, and not as a substitute for it.

11. The National Education Association observes with great satisfaction the tendency of cities and towns to replace large school committees or boards which have exercised executive functions through subcommittees, by small boards which determine general policies, but intrust all executive functions to salaried experts.

12. We cannot too often repeat that close, intelligent, judicious supervision is necessary for all grades of schools.

13. The rapid establishment of rural high schools and the consolidation of rural district schools are most gratifying evidences of the progress of education. We believe that this movement should be encouraged until the children of rural communities enjoy the benefits of public education to an extent approximating as nearly as practicable the education furnished in urban communities.

14. The National Education Association wishes to record its approval of the increasing appreciation among educators of the fact that the building of character is the real aim of the schools and the ultimate reason for the expenditure of millions for their maintenance.

There are in the minds of the children and youth of to-day a tendency toward a disregard for constituted authority, a lack of respect for age and superior wisdom, a weak appreciation of the demands of duty, a disposition to follow pleasure and interest rather than obligation and order. This condition demands the earliest thought and action of our leaders of opinion and places important obligations upon school boards, superintendents and teachers.

15. It is apparent that familiarity with the English Bible as a masterpiece of literature is rapidly decreasing among the pupils in our schools. This is the direct result of a conception which regards the Bible as a theological book merely, and thereby leads to its exclusion from the schools of some states as a subject of reading and study. We hope for such a change of public sentiment in this regard as will permit and encourage the reading and study of the English Bible, as a literary work of the highest and purest type, side by side with poetry and prose which it has inspired and in large part formed.

16. The National Education Association wishes to congratulate the secondary schools and colleges of the country that are making an effort to remove the taint of professionalism, and other abuses, that have crept into students' sports. This taint can be removed only by leading students, alumni and school faculties to recognize that inter-school games should be played for sportsmanship and not merely for victory.

17. It is important that school buildings and school grounds should be planned and decorated so as to serve as effective agencies for educating, not only the children, but the people as a whole, in matters of taste. The school is becoming more and more a community center, and its larger opportunities impose new obligations. School buildings should be attractive as well as healthful, and the adjoining grounds should be laid out and planned with appropriateness and beauty.

18. The highest ethical standards of conduct and of speech should be insisted on among teachers. It is not becoming that commercialism or self-seeking should shape

their actions, or that intemperance should mark their utterances. A code of professional conduct clearly understood and rigorously enforced by public opinion is being slowly developed, and must one day control all teachers worthy of the name.

19. In teaching, as in every other kind of work, the best service is secured by finding the individual best fitted to the particular place as indicated by training, experience, and meritorious service; the National Education Association therefore heartily approves a merit system of promoting teachers and filling vacancies. We assert, furthermore, that the grounds upon which a teacher may apply for a position are preparatory training, experience, and meritorious service—in a word, professional fitness, alone; and that the use of other personal and political arguments to secure appointment is deplorable in the teacher and a serious menace to a high professional standard.

The foregoing principles and aims have been fully considered by the Committee and unanimously recommended to the Active Members of the National Education Association for adoption.

Respectfully submitted,

Committee on Resolutions:

HOWARD J. ROGERS, *Chairman*,
of New York.

ORVILLE T. BRIGHT,
of Illinois.

CHARLES E. CHADSEY,
of Colorado.

EDGAR H. MARK,
of Kentucky.

GEORGE M. PHILIPS,
of Pennsylvania.

DAVID B. JOHNSON,
of South Carolina.

Adopted by unanimous vote of Active Members in session, July 1, 1908.

IRWIN SHEPARD,
Secretary

CONGRESS ON TUBERCULOSIS

THE *Journal* of the American Medical Association announces that the following physicians and scientific men expect to attend the approaching congress at Washington:

Belgium: J. F. Heymans, Ghent.

Denmark: Holger Rodam and Johannes Fibiger, Copenhagen.

Germany: G. Hormann, Munich; Mme. Lydia Rabinowitsch-Kempner, F. Meyer, G. Kirchner, Robert Koch, Gotthold Pannwitz and F. Helm, Berlin; F. Köhler, Werden a. d. Ruhr; Dumpf, Ebsteinburg b. Baden-Baden; W. Schwabe and Uhlmann, Leipzig; W. von Leube, Würzburg.

Great Britain: W. R. Smith, G. A. Heron, C. Theodore Williams, H. Horton-Smith and A. Latham, London; Sheridan Delépine, Manchester; Sims Woodhead, Cambridge; Nathan Raw, Liverpool; N. D. Bardswell, King Edward Sanatorium, Midhurst; R. W. Philip, Edinburgh; William Osler, Oxford.

France: Charles Baradat, Cannes; F. Barbary, Nice; A. Calmette, Lille; Dupeux, Bordeaux; A. J. Magnin and L. Landouzy, Paris; R. Hervé, Lamotte-Beuvron; A. Leune, Versailles, Arloing, Lyons; P. Gallot, Mentone.

Italy: Umberto Gabbi, Messina; Massalongo, Verona; Eduardo Maragliano, Genoa.

Greece: Bastile Patrikios, Athens.

Holland: C. F. J. Blocker, Voorburg; R. de Josselin de Jong, Rotterdam.

Norway: F. Harbitz, Christiania; Herm. Gade, Hagekiken pr. Bergen.

Austria: Reisinger, Komitau i Böhmen; Lang, H. von Schroetter, Bartel, C. von Pirquet and H. Riedl, Vienna; A. Taussig, J. Dvorack and T. Altschul, Prague.

Roumania: J. Mitulescu, Bucharest.

Russia: S. von Unterberger, N. Th. von Tschigaieff and A. A. Wladimiroff, St. Petersburg.

Sweden: Karl Petren, Upsala; K. O. Medin, Stockholm.

Switzerland: Spengler, Davos-Platz; Th. Exchaquet, Leysin; Egger, Basle.

Spain: Jose Chabas, Valencia; A. Martinez-Vargas, Barcelona.

Hungary: H. Preisz, Budapest.

COLLECTIONS OF MINERALS FROM ONTARIO

A PRIZE of \$100 is offered by Mr. J. B. Tyrrell, mining engineer of Toronto, for the