

visiting teachers took place in the university library last evening. About two hundred partook of the excellent repast provided. The home teachers made themselves useful in the evening's programme. Dr. J. F. Millaugh presided. His words of kindly greeting were responded to by Prof. Wilson of Provo, who expressed the gratitude and appreciation of the visiting members in eloquent terms. He announced this to be an age of association and combination to carry out ideas. The old secret plan was secret and wrong and meetings of this character could only redound in good to the educational interests of the Territory. Such occasions offered an opportunity for brightening up and obtaining the most advanced views of the day. In behalf of the visitors he again thanked the Salt Lake hosts.

Prof. V. B. Dolliver recited a selection from John G. Saxe, entitled "Pyramus and Thisbe." "Daisy's Faith" was given by little Lucile Badger, the ten-year-old pupil of Miss Wilkins, of the Fourteenth Ward school, and elicited great applause.

The toast, "The Lady Teachers, May Their Shadows Never Grow Less," was responded to by Superintendent J. S. Peery, of Weber county. Upon their teaching, he said, depends the prosperity of our institutions. The lady teacher is the moulder of person and character, and teaches us by divine gifts, and leads us by a mere hair.

J. B. Walton recited "Fare Ye Well, Brother Watkins." In response to an encore he gave "Brother Sam's Letter," from Sothern's "Lord Dundreary."

The quartette then sang "Hail, all Hail," and Mrs. Wolfe and Miss Sprague rendered the duet entitled "Hope beyond."

The session of the Utah Teacher's Association was brought to a close December 30, one of the chief features of the day being Prof. Henry Montgomery's paper on the subject of "Elementary Science in the Public Schools." From it we take the following extracts:

The first thing to be considered in the teaching of science is the stage of the development of the faculties of the child. Let this be first diagnosed, and then let no mistake be made in prescribing the kind of material suited to his condition, and the character of the methods of instruction to be employed in his particular case.

To the question, "Should science be taught in the public or common schools?" I answer in the affirmative.

Which of the sciences? Should it be chemistry or physics, or zoology, or mineralogy, or botany, or physiology, or geology? I answer, all of them as one subject, the study of nature. Only in the maturity of manhood and womanhood is it possible to specialize. It is not possible in childhood. The youthful mind is not capable of specialization. All systems of classification, even to the division of the sciences, are artificial. These sciences come naturally together, and therefore are most readily understood and remembered by the child when studied in this way. Let the child see the fish swim in the water, the bird fly through the air, the river erode its banks, and the waves beat and grind the pebbles against one another on the beach. Let him be led to use his senses in observing the soil,

sand, gravel, trees, insects, crops, birds, snow, rain, stones, rocks and fossils, just as they occur in nature. In every case, even to adult persons, the associations are of vital significance. Many a time it happens that a mineral, a bit of rock or a fossil, by itself is of little use in helping us to understand some question of moment. Again, an extract from a book may be unintelligible or ambiguous. But, in the one instance permit us to see the associated minerals and associated rocks in position, and, in the other, to read the context, and what a flood of light is let in upon us!

The relations that objects of the three kingdoms of nature bear towards one another are of the utmost importance. But, in addition to the importance of the association and relations, the case with which children are enabled to comprehend the characteristic structure, habits and uses of anything when studied as it occurs in nature, is something the teacher and parent cannot afford to ignore. It is not a question, then, of dividing and classifying the sciences, and choosing one or more to be placed on the curriculum of the common schools. It is not a specialist in any particular branch who is needed to teach children. Teachers should be chosen with reference to their fitness for teaching children at a certain stage of mental development. This is the natural standard. It is absolutely necessary that the teacher be possessed of good common-sense, be able to see clearly the things around him, be accurate as far as his work extends, and be full of love for that work.

The teaching of science to children implies practice in drawing, writing, composition and arithmetic. An afternoon's, or better still, a forenoon's ramble over the fields, up a canyon, upon the side of a mountain, or along the shore of a lake or bank of a river, or a visit to a good museum, will ordinarily afford abundance of material and opportunity for penmanship, letter-writing, drawing, measurement, calculation and oral and written language lessons.

As to methods of instruction in elementary science, the judicious use of books, pictures, charts, maps and models is proper. But, the instruction should be largely by open air excursions of two or three hours each, and taken twice or thrice a week. In the school room the material collected by the teacher and pupils in their rambles may be examined and studied.

In comparing the system of teaching by field-excursions with instruction given wholly in the schoolroom, Professor Montgomery said: "Under these circumstances what are the teachers to do? Simply stay shut up in the schoolhouse during the finest weather, and be obliged four to six hours a day, to teach as best they can, perhaps without maps, globes, models or other proper appliances. This would be somewhat bearable, aye, even profitable, were the pupils 16 to 20 years old. But it is a terrible thing for children, and a terrible thing for their teacher, to be expected to endure. If such there are in Utah they have my sympathy. I sincerely pity them. Think of trying to hold in quietness and attention in a school room, for hours at a time, forty or fifty children, whose tender growing bodies and minds call loudly for air, for sunshine, for exercise and free-

dom! What is the use of talking about teaching science so long as in our very attempts to teach it we continue to act in opposition to the laws of nature?"

The speaker recommended that permanent collections of natural and manufactured objects be made by each school, and pointed out the way in which the Deseret University museum could be made useful to the pupils and teachers of the public schools of Utah. After emphasizing the necessity for a teacher of science being himself an enthusiastic student of nature, he called attention to the fact that, partially or altogether, three systems of organs of the human body are, for reasons of delicacy, omitted from the course of instruction in all the schools. He believed that something could and would be done to provide proper instruction upon these portions of physiology and hygiene.

Professor Montgomery concluded his paper in these words: "I know the public schools of this country have done and are doing a useful and a noble work. The nation cannot do without them, nor can it afford to permit their usefulness to be impaired through lack of support and sympathy. Give them the support and sympathy they need and deserve, and they will be improved, and the country profited thereby. Honest and intelligent interest in the schools should lead to improvements in their condition. If changes in the system seem desirable, let them be made. Let neither prejudice nor individual selfishness stand in the way. It has more than once been stated by American educators of experience and high standing that science teaching was difficult, and that few teachers are capable of engaging in it. I fear there is much truth in this statement. Science, like any other subject of education, must be taught by a competent person. It is folly to expect proper results from persons who have not both the natural and the acquired qualifications of the true teacher; and it is much greater folly to expect them from those who have neither of these qualifications. Teachers possessed of both are indeed rare; and how can we expect them to be plentiful so long as the trustees and boards of education, and the people behind the trustees and boards, remain satisfied with so low a standard? When the public come to realize that a higher standard of qualifications, mental and moral, on the part of the teacher is absolutely necessary for the welfare of our country; when they come to show a heartier appreciation of high-class attainments, they will be willing to make adequate compensation for the teacher's labor and influence, they will seek teachers of longer and better training and experience, teachers who carry with them an atmosphere of a higher and more inspiring character. I have hope that this time will come. Let us do what we can to bring about these conditions. For the sake of the youth of our land, for the sake of the material, the physical, the moral and intellectual advancement of our country, for the sake of everything that can contribute towards the promotion of the civilization of this great nation, let us pray that the dawn of that day may be hastened, and that the free public school system, which forms a network throughout the length and breadth of