Educational Matters.

Professor Whiting's Suggestions on Zoology—Addresses by Miss Holton and Ex-Governor Thomas.

The following contribution is by Professor C. A. Whiting of the University of Utah:

Zoology.

A week ago I presented a few notes on botany, which I hoped might prove suggestive to teachers engaged in some more school work. The notes I offer a few suggestions regarding work which may be done in zoology.

FROGS.

1. Where are frogs found at this time of the year?

2. Can you tell a frog which was hatched this spring from an older one? How?

3. Do you think that all of the tadpoles, which we could see in the spring, are now toads and frogs? If not, what has become of some of them?

4. Are tadpoles and toads and frogs protected in any way by their color? Note that the tadpoles, when at their do, are a mud-bottomed pool, are black, that toads living on the dry ground are brown, while frogs living in the green grass and among green leaves are green. Does color (call it what scientists term protective resemblance) help? That is, its color is a protection to the animal, enabling it to escape the observation of its enemy.

5. Can you find any tadpoles now? Do you think they will develop into frogs this fall? Why or why not? Will the cold affect them in any way?

INSECTS.

Look in the bottom of clear water ditches and see if you can find some queer looking cylinders made up of sand and some small bits of leaves and sticks. These cylinders are about an inch long and one-fourth of an inch in diameter. If one of these cylinders is carefully broken open, an immature insect will be found inside. This is the larva of the caddis fly. Collect a few of them, and see how long these larvæ continue active. Keep a few of them in a jar all winter, changing the water occasionally, and see if they develop into the mature fly in the spring.

GRASSHOPPERS.

1. Are the grasshoppers as numerous as they were a few weeks ago?

2. What has become of those which have disappeared?

3. Are those now living as active as those were which were found in August?

4. Will they all die this winter? If so, where will the grasshopper come from next year?

BIRDS.

1. Do birds sing as much now as they did early in the spring and summer?

2. Do you find any birds building nests? How about the domestic doves?

3. Can you find as many kinds of birds as you could in the summer? What has become of those which have disappeared?

4. Why do some birds leave us in the fall? Do you think that the food supply has anything to do with the migration of birds?

Phonics.

The following address was delivered before the Utah County Teachers' Association, at Provo, on Saturday, September 22nd, by Miss M. A. Adelaide Holton, supervisor of primary instruction in the schools of this city. Miss Holton spoke substantially as follows:

I am sure that the watchword of the teachers of Utah county must be "progression," otherwise I should not be here.

How are we to lift our schools to a higher plane? As we improve, and only as we improve, do we lift the school to a higher level. There is no rut so good that we can afford to get into it.

No method of teaching reading was ever satisfactory unless phonics were taught in connection with it. This is a broad statement to make, but I think we can support it. Let us go back to the history of reading to the a, b, c, method. After years of study, pupils learn ad to pronounce, if not to understand what they read.

Then came the German method. This, however, was better in theory than in practice. Following this came the word method, which well serves our purpose for the first few months, after that the memory is over taxed and the children guess at the words. The sentence method has also been tried and with no better results than the word method, unless it be the expression is better; and the results of the synthetic or phonic method will be no better, if taught alone. There is one fine point in this method to which we must hold fast, and that lyl gives us a key to independent work.

Now we must combine all these methods and use which may be termed the eclectic method.

The understanding of phonics not only gives independence but better expression. This is a strong point. Through the understanding of phonics, the children gain confidence in themselves.

It may feel that they can pronounce words or have the key by the use of which they can learn the unknown; their reading is better than where they depend on memory alone for these all.

By the use of phonics the child's vocabulary is enlarged not so rapidly at first as when he has become familiar with the elements. If you want your children to be much mistaken, give them independent work.

There are some teachers who can make good readers with any method but these are exceptional, and it is for the good of the majority that we must work.

It is said that "A child is as old as he reads." Now whatever would you rather have, one who could read well, or one who is good in mathematics? I would say one who is good in reading, because he has more general knowledge. In talking with a lady teacher once she said she had used her phonic methods with no good results and considered it only a makeshift; in reply, I quoted the following from Scott: "What is an argument against sin?" Now in Scott's phonics well is an easy word. The sun just must be thoroughly understood, and a good plan is necessary in order to teach successfully this, or any other study.

Two years ago the phonic method was introduced into the Utah schools. We were not very enthusiastic that year, but the next year we made a more complete plan, and the teachers having a better understanding of the subject, we did excellent work, and the only thing lacking now is that the teachers should have better preparation.

I will give you a general plan—remember, it is not to be followed "word for word," or "letter for letter." It must simply be used as a guide, because the pupils must be made to fit the school, not the school to fit the child. Your success in using the phonic method depends upon the following:

(1) The teacher. The teacher should be cheerful, energetic, progressive and persevering. (2) The teacher's knowledge of the subject. (3) A logical and connected plan of work. Now we come to the success of the work as regards the children. (1) Sure foundation. (2) Thorough drill. (3) Approximate to work in all directions.

As a word of encouragement to those who think this a hard thing to do, I will say learning can be mastered. Few teachers are poor, every are such.

Phonics should be taught as a separate subject. I would apply it to reading as soon as I see the necessity for it. Phonics are not their best until they are made mechanical. Always stop the moment fell or they become monotonous. Always have the attention to the average on good work.

We have talked about the "why" phonics should be taught, but now we will consider the "how." Teach long and short vowel sounds, and the simple consonant sounds. Teach those in the order you consider best.

The first point in our plan is imitation work. (1) Teach the ear to recognize different sounds and the vocal organs to reproduce them. (2) teach thoroughly the sounds and give the characters which represent them. (3) make familiar words from these sounds, make new words, drill—produce is only a means to an end. (4) add new sounds to those learned. (5) apply to the reading, now—apply to all work, here. (6) variety of drill and devices.

This is only a general plan, but the one following is a plan for one lesson. (1) Point to sounds—a. (2) Attaining exercises. (3) Rapid review of learned sounds. (4) Teacher sound words and sentences containing the new sounds. (5) present the new word. (6) write a word containing the new sound on board. (7) write more words containing a sound. (8) have the children give some words. (9) give new words for the children to make out. (10) apply all words.

And now let me say before I close: There is virtue in method, but one hundred times more in interest.

Presbyterian Institute.

Ex-Governor A. L. Thomas's address at the recent exercises attendant upon laying the corner stone of the new Presbyterian College Institute building in Salt Lake City:

The American people have always manifested a deep interest in the subject of education. Commencing with the first settlers on the Atlantic Coast and continuing down to the present time, the colonial and United States government, have embodied in public statutes their devotion to the cause of education.

We may form an adequate conception of the deep sense of educational responsibility felt by the people of the colonies by reading the acts framed by the different colonies.

The acts of 1642 and 1647 passed by the general court of the Massachusetts Bay colony, provided as follows: By the former, the selectmen of every town were required to "take a vigilant eye over the brethren and neighbors to see: (1) That none of them shall suffer so much barbarism in any of their families as not to endeavor to teach, by themselves or others, their children and apprentices so much learning as may enable them perfectly to read the English tongue, and knowledge of the capital laws, under penalty of twenty shillings for each neglect therein."

The law of 1647 went further, and provided for the compulsory support of public schools. Every town containing fifty householders was required to employ a teacher, and those containing one hundred householders were required to "set up a grammar school, the master thereof being able to instruct youth as far as they may be fitted for the university." Definite penalties were provided for violation of this law. We can hardly understand the full scope of this law of 1647, when we consider the important fact that the term "grammar school," in the old days always meant "a school where the ancient languages were taught, and where youth could be fitted for the university."

In colonial New York, in the settlements down to 1664, the duties of minister and schoolmaster were combined. Among the records of the Dutch government on the Delaware is an account of the labors of a man who arrived in 1657 in the colony "to serve as schoolmaster, comforter of the sick, and setter of psalms."

In 1664, in the colony established by Wm. Penn, was passed what is known as the "great law" which provided "that all persons within the province and territories thereof, having children, and all the guardians and trustees of orphans, shall cause such children to be instructed in reading and writing, so that they may be able to read the scriptures and to write for the most they attain to the age of twelve years, and that they then be taught some useful trade or skill that the poor may work to live, and the rich, if they become poor, may not want."

That was embodied in the several statutes which are deemed to be one of the highest principles of social well being universal education.

Schools for higher education at a very early period were recognized as essential to a civilized and enlightened community. One of the continental colonies in the general court of the Massachusetts colony is as follows: "The court agreed to give £400 toward a school and college, whereof care shall be taken next year, and so from time to time, so long as the work is forthed, and that the court is assured which is what hindrances." Two years later John Harvard made a bequest of the college which was continued under the supervision of the colonial court, and it was resolved to open the college at once, and give it the name of Harvard.

To further the interest of the college the court in 1650 adopted the following: "Whereas, through the good hand of God upon us, there is a college founded at Cambridge, in the county of Middlesex, called Harvard college, for the education, instruction, whereof the court has given the sum of £400, and also the revenue of the forty pounds Gardiner and Boston, and land, with the well ordering and managing of the said revenue is of great concernment, it is therefore ordered by the court and the authority thereof, that the governor and deputy-governor for the time being and all the magistrates of the jurisdiction, together with the teaching elders of the six next adjacent towns, viz., Roxbury, Dorchester, Braintree, Weymouth, Cambridge, Watertown, Charlestown, Boston, Roxbury and Dorchester,—and the president of the said college for the time being, shall, with him, from time to time, have full power and authority to make and establish all such orders, statutes and constitutions, as they shall see necessary for the ordering, guiding and furthering of the said college, and the several members thereof, from time to time, in poesy, morality and learning, as also to dispose, order and manage, to the use and benefit of the said college and the members thereof, all gifts, legacies, bequests, revenues, lands and donations, as either have been, are, or shall be conferred, bestowed, or anyways fall or come to the said college."

The college of William and Mary was also established in Virginia at a very early period. After the colonies achieved their independence, one of the first acts passed was the ordinance of 1787, granting one section of every township of land to aid of public education, and this was supplemented by later laws increasing the grant to two sections of each township. Large grants of land have also been made in support of higher education. Our government has given to our colleges a quantity of land exceeding many empires in extent.

Schools for higher education are the great gala of the common schools; they stimulate the work of the lower schools, are the great starts lights penetrating every fold of human ignorance, and exercising an influence on the national mind. Every citizen, if it desires to enjoy the highest and best resources of its people, must encourage higher education. If the people of the future State of Utah desire to keep pace with the wonderful march of the civilization of the nineteenth century, they must implement every effort to further higher education.

The citizens of Utah welcome the Presbyterian institute to be established by the Presbyterian church, and wish for it a wide field of usefulness and prosperity.

SPECIAL EXCURSION RATES VIA THE UNION PACIFIC,

To Salt Lake City, for the

Territorial Fair and Sixty-fifth Semi-Annual Conference, October 2nd to 7th.

For above occasion the UNION PACIFIC will sell Excursion Tickets at the following rates, to Salt Lake City and return:

From.	Rate.	From.	Rate.
WYOMING.		IDAHO.	
Laramie	$15.00	Nampa	$20
Cheyenne Junc.	15.00	Boise City	20
Cheyenne	15.00	Mountain Home	20
Sherman	15.00	Glenns Ferry	20
Dale Creek	15.00	Bellevue	20
Hermosa	15.00	Hailey	20
Cheyenne Junc.	15.00	Ketchum	20
Lookout	15.00	Carey	20
Rawlins	15.00	Laidlaw	20
Bridger	15.00	Shoshone	20
Green River	15.00	Richfield	20
Evanston	15.00	Gooding	20
Almy	15.00	Bliss	20
		Hagerman	20
		Wendell	20
UTAH.		Gurley	20
Wahsatch	15.00	Hunt	20
Castle Rock	15.00	Lincoln	20
		Ketchum	20
Park City	15.00	Logan	20
Kamas	15.00	Wellsville	20
Heber	15.00	Mendon	20
Provo	15.00	Cache Junction	20
Lehi	15.00	Trenton	20
Salt Lake	15.00	Dewitt	20
Garfield	15.00	Tarkio	20
Black Rock	15.00	Grant	20
Saltair Beach	15.00	Franklin	20
Ogden	15.00		
Uinta	15.00	UTAH.	
Lake Point	15.00	Nephi	20
Tooele	15.00	Juab	20
Stockton	15.00	Levan	20
Rush Valley	15.00	Scipio	20
Vernon	15.00	Fillmore	20
Grantsville	15.00	Holden	20
Kanosh	15.00	Deseret	20
Lake Shore	15.00	Oak City	20
Leland	15.00	Delta	20
Clifton	15.00	Lynndyl	20
Dunn	15.00	Hinckley	20
Eureka	15.00	Sugar	20
Silver City	15.00	Flowell	20
Deseret	15.00	Kanosh	20
Oasis	15.00	Salina	20
Hinckley	15.00	Gunnison	20
Sugar	15.00	Mt. Pleasant	20
Lynndyl	15.00	Spring Lake	20
Delta	15.00	Indianola	20
Fillmore	15.00	Utah	20
Kanosh	15.00	Lake View	20
Salina	15.00	Provo	20
Gunnison	15.00	Provo Junction	20
Mt. Pleasant	15.00	Springville	20
Spring Lake	15.00	Mapleton	20
Indianola	15.00	Spanish Fork	20
Utah	15.00	Thistle	20
Lake View	15.00	Soldier Summit	20
Provo	15.00	Wellington	20
Springville	15.00	Scofield	20
Spanish Fork	15.00	Winter Quarters	20
Thistle	15.00	Castle Gate	20
Soldier Summit	15.00	Price	20
Wellington	15.00	Helper	20
Winter Quarters	15.00	Duchesne	20
Castle Gate	15.00	Myton	20
Price	15.00	Ashley Forks	20
Helper	15.00	Vernal	20
Duchesne	15.00	Lake Fork	20
Myton	15.00	Grand Junction	20
Ashley Forks	15.00	Green River	20
Vernal	15.00	Thompson	20
Lake Fork	15.00	Crescent Junction	20
Grand Junction	15.00	Moab	20
Green River	15.00	Dolores	20
Thompson	15.00	Gateway	20
Crescent Junction	15.00	Mack	20
Moab	15.00	Fruita	20
Dolores	15.00	Grand Junction	20
Gateway	15.00	Palisade	20
Mack	15.00	Grand River	20
Fruita	15.00	Clifton	20
Grand Junction	15.00	Fruita	20
Palisade	15.00	Grand Junction	20
Grand River	15.00	Thompson	20
Clifton	15.00	Crescent Junction	20
Fruita	15.00	Moab	20
Grand Junction	15.00	Dolores	20
		Gateway	20
		Mack	20
		Fruita	20
		Grand Junction	20

SELLING DATES.—From all points, October and 3, 4, 5, inclusive; good to return until October 11th.

D. E. BURLEY,

Gen'l. Agent Passenger Department, Salt Lake City.

CONFERENCE AND TERRITORIAL FAIR AND EXPOSITION RATES VIA

The Rio Grande Western Railway.

For the Semi-Annual Conference, L. D. S., at Salt Lake City, October 5th to 7th, inclusive, and Utah Territorial Fair and Exposition at Salt Lake City, October 2nd to 6th, inclusive, the following rates are authorized to Salt Lake and return:

From	Rate	From	Rate
Parley's	$ 1 25	Gunnison	$ 3 25
Bingham Junc.	1 25	Manti	3 25
Bingham	1 25	Ephraim	3 25
Copperton	1 25	Spring City	3 25
Garfield	1 25	Fairview	3 25
Lake Shore	1 25	Mt. Pleasant	3 25
Saltair Beach	1 25	Spring Lake	3 25
Black Rock	1 25	Indianola	3 25
Ogden	3 25	Utah	1 25
Uinta	3 25	Lake View	1 25
Lake Point	3 25	Provo	1 25
Tooele	3 25	Springville	1 25
Stockton	3 25	Mapleton	1 25
Rush Valley	3 25	Spanish Fork	1 25
Vernon	3 25	Thistle	1 25
Grantsville	3 25	Soldier Summit	3 25
Kanosh	3 25	Wellington	3 25
Lake Shore	3 25	Winter Quarters	3 25
Leland	3 25	Castle Gate	3 25
Clifton	3 25	Price	3 25
Dunn	3 25	Helper	3 25
Eureka	3 25	Duchesne	4 25
Silver City	3 25	Myton	4 25
Deseret	3 25	Ashley Forks	4 25
Oasis	3 25	Vernal	4 25
Hinckley	3 25	Lake Fork	4 25
Sugar	3 25	Grand Junction	3 25
Lynndyl	3 25	Green River	3 25
Delta	3 25	Thompson	3 25
Fillmore	3 25	Crescent Junction	3 25
Kanosh	3 25	Moab	3 25
Salina	3 25	Dolores	3 25
Gunnison	3 25	Gateway	3 25
Mt. Pleasant	3 25	Mack	3 25
Spring Lake	3 25	Fruita	3 25
Indianola	3 25	Grand Junction	3 25
Utah	1 25	Palisade	3 25
Lake View	1 25	Grand River	3 25
Provo	1 25	Clifton	3 25
Springville	1 25	Fruita	3 25
Mapleton	1 25	Grand Junction	3 25
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Wellington	3 25	Dolores	3 25
Winter Quarters	3 25	Gateway	3 25
Castle Gate	3 25	Mack	3 25
Price	3 25	Fruita	3 25
Helper	3 25	Grand Junction	3 25
Duchesne	4 25	Palisade	3 25
Myton	4 25	Grand River	3 25
Ashley Forks	4 25	Clifton	3 25
Vernal	4 25	Fruita	3 25
Lake Fork	4 25	Grand Junction	3 25
Grand Junction	3 25	Thompson	3 25
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