

HAMILTON.—Lightning, thunder and rain, 13th, 28th. Frost, 4th. Wind storms, 1st, 3rd, 11th, 13th, 25th, 26th, 27th. Fogs, 1st, 13th. Rain, 1st, 2nd, 8th, 13th, 16th, 19th, 26th, 28th.

PEMBROKE.—On 11th, thunder. 12th, lightning, thunder and rain. Between 25th and 26th, very sudden and great change of temperature. 31st, sheet lightning. Frost on 1st, 3rd, 4th, 22nd. Wind storms, 3rd, 4th, 17th, 20th. Fog, 3rd. Snow, 2nd, 3rd. Rain, 1st, 3rd, 11th—19th, 26th, 30th, 31st. The ice did not leave the river till 1st May. Snow lay in shaded places till 10th. The water rose earlier and higher than usual this spring.

PETERBOROUGH.—4th, auroral light over N.H. 7th, faint auroral light at 9 P.M.; about 10.5 bright auroral light in a low arch, lower rim of arch clearly defined and resting on apparently dark cloud underneath it; suddenly arch broke into faint streamers, which soon faded, leaving only auroral light. 25th, leaves on forest trees fully out; on acacias, &c., only bursting. 26th, a few minutes after midnight, commenced to blow (force 7) quite suddenly; continued to blow occasionally for about an hour; appearance of a heavy thunder storm with the wind, but the cloud passed without rain; lightning with thunder. Frost, 5th, 6th, 8th, 10th, 21st, 22nd. Moist snow with the rain on 1st; did not lie. Rain, 1st, 2nd, 13th—17th, 19th, 26th, 28th—31st. This month has been very different from the same month in ordinary years; almost none of the high winds (occasionally very chilly) and excessive dust, with the occasionally sultry days, which usually characterize the month of May; a good deal of dark, rainy weather during the month. The frequent occurrence of two strata of clouds also remarkable, and this occurred much oftener than shown by three daily observations, as the upper stratum was often observed when the clouds broke during the day.

SIMCOE.—Lightning with thunder, 17th and 18th. Rain, 1st, 12th, 15th, 17th, 28th, 31st.

STRATFORD.—On 3rd, large solar halo, 12 noon. 12th, lightning. 14th, primary rainbow, 7 P.M. 17th, cherry and wild plum trees in bloom; early apple trees in leaf. 20th, faint lunar halo at 9 P.M. 24th, pear and garden plum trees in bloom; late apple trees in leaf. 25th, thunder and rain. 26th, mosquitoes seen. 31st, perfect primary and imperfect secondary rainbow at 7 P.M. Frost, 3rd and 4th. Wind storms, 26th, 27th, 28th. Fogs, 14th, 28th. Snow, 1st. Rain, 1st, 13th—16th, 25th, 26th, 28th, 30th, 31st.

WINDSOR.—On 15th, lightning, thunder and rain. 19th, lunar halo. 21st, large lunar halo. 24th, large faint lunar halo; meteor in W towards H, elevation 45°. 25th, lunar halo. 25th, rainbow at 7.20 P.M. Wind storms, 11th, 12th, 16th, 27th. Rain, 1st, 4th, 12th, 13th, 15th, 16th, 19th, 21st, 26th, 27th, 28th, 30th, 31st.

2. TOTAL ECLIPSE OF THE SUN, AUGUST 7.

The total eclipse of the sun, which will occur on the 7th of August next, is the only one since 1834, which could be observed in any considerable portion of this continent; and no other total eclipse will be visible in America during the present century. As a partial eclipse, it will be visible all over the northern parts of this continent, whilst the path of the umbra, in which the eclipse will be total, is about 140 miles in breadth, and, passing from Siberia across this continent to the Atlantic Ocean, includes within its limits portions of Alaska, British America, Montana, Dakota, Nebraska, Iowa, Missouri, Indiana, Kentucky, Tennessee, and North Carolina. An imaginary line drawn lengthwise through the middle of this umbra would indicate the path of the central eclipse, designating upon the earth the various places where the centre of the moon's shadow will seem to coincide with the centre of the sun. In St. Louis, Omaha, Cairo, and Knoxville, it will only for a moment be seen as a total eclipse; at Fort Clark, Fort Union, Sioux City, Louisville, Frankfort, and Raleigh, it will be seen longer, whilst at Des Moines and Fort Conolly it will be central, or very nearly so.

A total obscuration of the sun is so rare an event, and gives so favourable an opportunity to promote geographical, astronomical, and other physical sciences, that it should not be allowed to pass without accurate and careful observations.

IX. Papers on School Text Books.

1. TEXT BOOKS FOR SCHOOLS.

To the Editor of the Monitor.

DEAR SIR.—I desire, through the columns of your paper to call attention of the Trustees and friends of education in the village, to the necessity of having our school well supplied with text books and apparatus, and that something be done immediately in order to secure these indispensable requisites.

Of the positive facilities for study, the first consists of books on all the branches of science to be pursued in school, and among the multitude of books it is not easy to decide which are the best. Books should be used in schools as prompters to thought. They should be designed to excite the scholar to the use of his mental power, to make him think closely and patiently, telling him one thing only to make him think of another; stating a fact to lead the pupil to search for the cause; describing phenomena to make the scholar think of their due order in the course of nature. A book of anecdote or of mere historical narration will serve scholars as exercises in reading, and may give useful information, but serves no purpose for mental discipline. A book of Arithmetic which teaches by rule and example only, which directs the scholar to place his 7

under his 9, and put down 6 and carry 1; or teaches him to compute the interest of \$40 for eight months, at 6 per cent by multiplying by 4 and cutting off the two right hand figures for cents, and leads his thoughts to nothing more, may guide the pupil in a few mechanical processes of thought, but cannot teach him to think. Hence the rage for simple books, entitled "science made easy," which told everything and left nothing to be studied out, has had its day. Common sense has decided that books of education should not be "labor-saving inventions," but means of increasing labor and making it profitable; as good roads are not to relieve horses from work, but to make them work to better purpose. But while good books for schools must not be so plain as to leave nothing for study they must not be so blind as to furnish no leading thoughts—so dark that the pupil cannot see his first step. Suggestive hints for starting processes of thought are indispensable, but as the books are to be used under teachers, and not in mere private study, they may, as they must, be left with a general adaption, leaving the particular application of the books to the different capacities of the scholars, very much at the discretion of the teacher; and it is in this department of his office that the discretion of the teacher can very highly commend itself.

In addition to books there are also other helps to study to be found in the various contrivances for illustrating the principles of science to the senses. The formulas of mathematics, the miniature machinery for illustrating laws of nature and explaining problems in philosophy, form together a body of apparatus, indispensable as incitements and guides of thought. They are a part of the language of science; a compend of the literature of nature; select phenomena to stand along the path of thought, as classical explanations of principles. The value of apparatus in teaching consists chiefly in the clear and direct views it gives of principles which would not be understood by the use of words; and in the present advanced state of common education, we cannot expect to gain the full advantages of our system, without the use of this help. It has become one of the duties of trustees to provide such means of illustrating scientific principles, as will put the scholar in command of his science, and furnish him with a firm basis and substantial materials of thought in all the branches of his study.

Before concluding I desire to call the attention of all those parents who have children attending our school at present, to the necessity of supplying them with text books immediately; for the most profitable investment which any parent can give his child is intellectual culture.

Yours, &c.,
A. B. LANG.

Meaford, April, 1869.

2. MORE ABOUT TEXT BOOKS.

To the Editor of the Monitor.

SIR.—A communication, which lately appeared in the columns of your paper, has induced me to give expression to my views of the advantages to be derived from the use of text books—or rather the disuse of them.

That the first positive facilities for study consist of books on all branches of science to be pursued in school, is a statement with which I feel, by no means inclined to agree. On the contrary, I am of the opinion that where the live text book—the teacher—is used, we may expect to find the more gratifying results. The teacher who takes the place of the book must, however, be thoroughly acquainted with all the subjects to be taught and the nature of those to whom the instruction is to be given. He must have whatever information he wishes to give at his fingers' ends—or rather at his tongue's end,—so that it may be readily received by the row of animated intelligences, who stand with glistening eyes and attentive demeanours prepared to receive it from him, in whom they have such unbounded confidence. This attentive activity must, in order to secure the desired end, be reciprocated by him. This, I believe, can be done more effectually without the book than with it. These remarks are not at all intended to apply to reading books of any kind; these are indispensable. But can the above mentioned confidence be secured more easily without the books than with it? The answer most emphatically is Yes.

He who makes a text book of himself "is very potent for good;" his pupils have boundless confidence in him and his office. They feel that they owe their rapid mental growth to him exclusively, and he is implicitly believed and obeyed. He sways their whole being as with a magic wand; he exerts over them an enormous moral influence for all educational purposes. He is to them the impersonation of truth, dignity and moral worth, and he must have very little moral character, if he does not feel exalted by their appreciation of him, and stimulated to work out his own moral bearing into a model for them." The book may be the best of its kind,