

February for 12 years was—2'05. Wind storms, 26th. Fogs, 3rd, 15th, 18th. Snow, 1st, 4th, 8th, 10th, 21st, 24th, 26th, 27th. Rain, 3rd, 4th.
 HAMILTON.—Wind storms, 4th, 6th, 20th, 24th. Fog, 18th. Snow, 1st, 3rd, 5th, 8th, 10th, 12th—14th, 21st, 22nd, 24th—27th. Rain, 11th.
 SIMCOE.—Wind storms, 4th, 8th, 11th, 12th, 21st, 22nd. Snow, 10th, 11th, 21st. Rain, 3rd, but inappreciable. A gloomy, sickly month.
 WINDSOR.—Hail, 26th. Wind storms, 19th—24th. Snow, 1st, 14th, 21st, 26th. Rain, 3rd.

VIII. Correspondence.

1. BEST METHOD OF TEACHING GEOGRAPHY AND ARITHMETIC.

To the Editor of the Journal of Education :

SIR.—The monthly meeting of the South Hastings Teachers Association held in Belleville on the 24th ultimo, was owing to the presence of Dr. Sangster, late Head Master of the Normal School, Toronto, the most interesting and instructive of any yet held by the Association. The President, Mr. Inspector Johnston, introduced Dr. Sangster, mentioned his long connection with the Normal and Model Schools of Ontario; the numerous and valuable Educational works of which he was the author, &c. After a few introductory remarks, the Doctor said that perhaps no subject was so mistaught as geography, because pupils were taught words and not things, and therein lay one of the most common errors of teachers. One fault was in allowing them to learn by rote from text books, and another was that they were introduced to maps before they understood map notation, and then when the map is introduced it is taught and nothing else. Don't begin to teach a map until the pupils are prepared for it. They should be thoroughly prepared by a proper course of training, such as examining the physical features of the country near the school. Cultivate the observation of the pupils, have them notice the difference in the length of the day and night at different times of the year, and the different seasons, where the sun rises and where it sets; teach them the cardinal points. They should not be taught from the maps before eight or nine years of age. Teachers should always try to lead them from the known to the unknown. Thus you have the idea of a brook in the child's mind, lead them to think of larger streams; you have given him the idea of a plain, teach him to think of boundless plains covered with tall grass, and you have placed in his mind the idea of prairies, and the pond multiplied by thousands becomes a lake. After thoroughly drilling in this manner, proceed to teach them the definitions in as practical a form as possible. The most successful class he ever taught was one that he allowed to form the continents, islands, &c., in a field, adjoining the old Model School, which was temporarily flooded with water. A very good plan was to have a quantity of sand and having spread it smoothly over a portion of the shed floor to the depth of half an inch, let them trace out the form of the continents, &c., removing the sand to represent bodies of water, piling it up to indicate mountains—topping the higher of these with salt or flour to represent snow, and neatly labelling each locality with its proper name. Such map drawing as this, even if roughly done is infinitely more valuable, as a means of teaching, than that projected on paper with scale and compass and pencil. The sympathy of numbers and the charm of seeing the physical features of a continent grow under their moulding hands give to the exercise an impressiveness it could not otherwise possess. Take a black-board, lay it on the floor, and with the class around you draw a plan of the school-room, have the children locate the different things in it, such as where the teacher's desk is, and the stove; then place it on the wall or set it up with the north side uppermost, the bottom south, &c. In another place draw on the same size a plan of the school yard, also a plan of the school section, and the township, and thus they get the idea of the scale of miles fixed on their minds. Then teach them map notation, they are then ready for the maps. The best plan is to begin with our own county first and then those next to us. It will take probably two years before they are ready for the maps. While learning map notation and the definitions, &c., a series of familiar lessons may be given on the principal countries, cities, &c., without reference to maps or any attempt at exact location. Thus Arabia, Brazil, Egypt, India, London, Paris, New York, the Nile, the Arctic regions, &c., may be pictured out in words aided if possible by pictorial illustrations, so that when the child subsequently meets with these and other names they are to him something more than mere words. After having gone over the map of North America, take the map of the world, and then the other continents, after which return to the map of our own country, and after having taught it very minutely, take up the map of the United States, as that after our own, is the most important to us. One great difficulty that the teacher meets with, is to make the pupils understand various lines drawn upon the map and their uses. The best plan is to take a black globe,

and placing a chalk mark on it, ask the pupils to describe its position. They at once perceive that they can only say it is on the globe. If our two opposite points be taken for the poles, they can say it is nearer one or the other when the globe is spun round on its poles, and the equator described they can say it is north or south of the equator. The first and other meridians and the parallels of latitude are then drawn and the pupils having been led to see their necessity in order to localize places, clearly understand their impotence and uses. Teach them that these lines are only imaginary, and are not upon the earth. Teach Physical before Political Geography; the teacher should thoroughly understand the map before he commences to teach it, so as to be able to point without more than merely glancing at it. He should endeavour to have his eyes fixed upon the class so that they can do nothing unless he is conscious of it. Be very careful to drill them carefully and thoroughly upon what they have been over, repeat and review constantly. Take imaginary trips through the country, or to distant parts of the world, and have the pupil name the places he would have to pass on his journey. Take occasionally the commercial column of a seaport newspaper, and drill upon that; have them tell what the vessels would bring from another country, and what they carry in return. Thus the teacher who is really alive to his work, may make Geography the romance of the school room.

In the afternoon the first subject taken up was Arithmetic.

Dr. Sangster said that Arithmetic was one of the most important subjects we have to teach, and is very frequently mistaught. Teachers are frequently very short-sighted in this matter, as their reputation as a good or bad teacher follows them, and from self-preservation, if nothing else, they should try to teach Arithmetic well. They should ask the Inspector to visit and examine their pupils and classify them, when they enter a new school. Very many schools are superficially taught, and only to show well at an examination. He said he frequently found those who said that they have been through the arithmetic two or three times, but who could not write down numbers with any degree of accuracy. He thought scholars should never go through the arithmetic but once, being thoroughly drilled on what they had gone over. If he had a class to teach five hours he would give three to review, and two actual progress. Teachers should try and remember their own difficulties when they were learning these same rules and perhaps they would have more patience with the little ones. Teach the advanced classes to work for themselves. For small children arithmetic should be divested of all technicalities, and never ask too much theory from them, as children frequently understand things which they cannot explain. The first thing is to teach them to count; for this purpose the teacher should be provided with a numeral frame; have them count pebbles or the panes of glass in the windows, next write down the numbers on the black-board as far as one hundred, then have them read and afterwards copy them down. He believed that if all our text books were in one great pile, and a holocaust made of them, it would be a good thing for the young of our country. By aid of the numeral frame teach them to add by twos, so that they can count as far as one hundred in this manner. They should be thoroughly drilled in these things as they proceed. Repetition without cessation should be the teacher's motto. Never allow them to resort to counting on their fingers or the notches in their slate frames, or by marks. After learning to count by twos, then take 3, 4, 5, &c., as high as nine. As they proceed, give them questions on the blackboard to be added up without spelling them over. In teaching subtraction teach them to count backward from 100, by ones, twos, threes, &c. He then proceeded to give very simple methods of explaining to the pupils the process of carrying in addition, and borrowing in subtraction. As soon as they can add and subtract, give practical questions involving both rules; one great fault with teachers is that they do not give enough practical questions. If they have been drilled well upon the addition table they will have no difficulty in learning the multiplication table. Be very sure they are well posted in all the arithmetical tables. Many teachers find great difficulties in teaching long division; best way is to teach them to do the same sum by both long and short divisions, showing the child that in long division we put down what we do mentally in short division. In teaching tables of weights and measures each school should be furnished with a set of weights, balances and measures. For long measure have the child count the number of inches in a foot; measure a yard for the child, also a perch and furlong; for avoirdupois, let him see that 1 oz. will balance 16 drams, and 1 lb. 16 oz.; for square measure use cardboard and mark off a square foot, then divide it into square inches and let them count them, they thus learn the numbers of square inches in a square foot, also mark a square yard and square perch, show them where the one quarter of a yard comes from in the 30 $\frac{1}{4}$ square yards that go to make up the perch. For dry measure, use sand, and let them fill a pint measure and pour it in a