(4) Said A to B, if to my age you add its $\frac{1}{3}$ and $\frac{2}{5}$ the sum will be 38; how old was he?

(5) A is 40 years old, and $\frac{3}{4}$ of his age is $\frac{3}{8}$ of twice as much as his wife's age; how old was his wife?

SCHOOL LAW.—*Time, 2 hours.*

(1) What does School Organization embrace?

(2) Define School Management.

(3) What is the design of School Discipline?

(4) Give some rules by which a teacher should be guided in inflicting punishment.

(5) How would you deal with the following offences:—Irregularity, Truancy, Quarrelsomeness?

(6) State the specific duties of a public school teacher.

(7) State the duties of pupils.

(8) Mention some of the duties of school trustees.

EDUCATION.—*Time, 2 hours.*

(1) What is education? Define physical, intellectual, moral and æsthetic education.

(2) What is instruction? What is the relation between education and instruction?

(3) Explain clearly your method of teaching the following subjects to a class reading in the 2nd Book:—Simple Addition; the principle of "carrying" in subtraction in 7600004 — 200304; the multiplication table; short and long division.

(4) When would you commence teaching Grammar? Explain your method with beginners.

(5) Give your method of teaching to III. Class Reading, Spelling, Writing, Reduction, G. C. M., L. C. M. and Reduction of Fractions.

(6) Give notes on teaching Grammar; Geography; History; addition, subtraction, multiplication and division of fractions; decimals to the IV. Class.

(7) How and when would you commence teaching Geography? Map Drawing?

(8) Give notes on any one of the following as an object lesson:—Cotton, lead pencil, the sheep, the horse.

HYGIENE.—*Time, 1 hour.*

(1) Describe a school room of dimensions sufficient to accommodate fifty pupils, drawing an outline of the floor, seats, &c.

(2) Write notes on Oxygen, the sweat glands, nutrition and the need of physical exercise in connection with health.

(3) Give a brief description of the skeleton, of the blood, and also of the circulation of the blood.

(4) Mention the organs of digestion, and give a description of the teeth, including their structure, classification, uses, and the hygienic rules for their preservation.

(5) Distinguish various kinds of ordinary food into body-warmers and flesh-formers, giving examples of each.

(6) Write notes on light, heat, cleanliness and pure air in connection with schools, showing their uses and the purposes they subserve in the economy of school life.

We take great pleasure in announcing that at the last meeting of the Protestant Board of Education for the Province of Manitoba it was moved by Prof. Hart, seconded by the Rev. Mr. Pinkham, Chief Superintendent, "That the Board advises all its teachers to become subscribers for a journal on education, and recommends the CANADA SCHOOL JOURNAL."

Contributions and Correspondence.

MODERN GEOMETRY.

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In scarcely any subject was a change of method more needed than Geometry. The purely abstract form in which its truths were presented all accorded with the nature of the subject which it deals with; the properties of bodies that relate to space, surfaces, lines, points, angles, &c., were rarely apprehended, and blackboard illustrations only tended to confirm the misapprehension. Logical demonstrations, as they were called, built upon such incorrect notions, were more frequently the efforts of memory than of reason, as may have been seen in the inability of most pupils to deal intelligently, at any stage of their course, with original propositions. Pupils with special geometrical tastes may have exhibited much ingenuity and fertility in the construction and solution of original problems; but the average pupil seldom gained such a grasp of principles as gave him any facility in applying them.

The principles which guide the intelligent teacher in the communication of elementary instruction ought not, it will be conceded, to be ignored in the teaching of Geometry. In the subject of Geography, conceptions are awakened by the pupil's attention being directed to the physical aspect of the country around him; these conceptions he is then led to represent in the form of plans, maps, &c. His notions of climate and the conditions upon which it depends are, in the first instance, all gained from his observation being called to the phenomena around him. He is thus led to study not only with intelligence, but with a vividness which cannot fail to awaken deep interest, the geography of any country. Arithmetic, again, is treated in a similar manner. Ideas of number are developed through the medium of objects; then follows representation of these ideas and afterward operations upon the numbers. If the same principles are applied to the teaching of Geometry, the steps should be (1) Geometrical conceptions, (2) Representation or Construction, and (3) Logical demonstration.

1. *Geometrical Conceptions.* The habit of commencing the elements of any subject by giving definitions is happily falling into disuse. The clearness of a pupil's impressions cannot be tested by his ability to give definitions in stereotyped phrases. They are to him nothing more than sounds recited at a given signal, until he finds that they are simply statements giving the essential properties of objects. Conceptions should be gained from the objects directly. The ideas of surface, line, point, angle, &c., should be developed with the assistance of such objects as can illustrate them. As a cube presents many of the elements of Geometry and is divisible into various parts, it may be often used for this purpose. Let it lie cut into thin divisions, the pupil will not only see what a surface is, but how surfaces are generated, and be enabled to abstract them from every solid. The idea of a line may be abstracted from the surface, and the idea of a point as indicative of position in the line or at its extremities. A solid is thus seen to be of *three* dimensions, a surface of *two*, a line formed from the meeting of two surfaces of *one* dimension, and a point which only indicates position of *no* dimensions. As a very brief illustration of awaken-