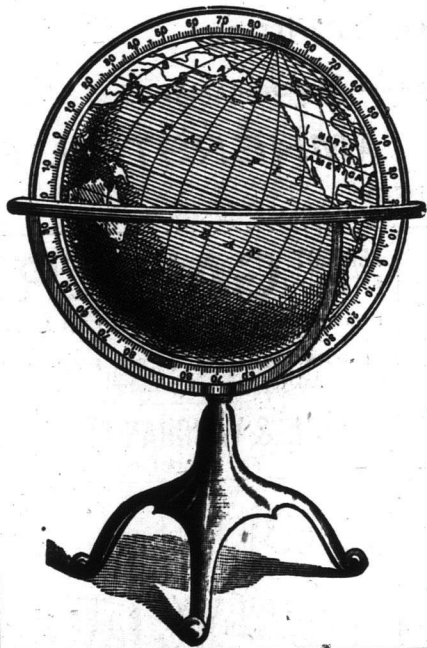


THE EDUCATIONAL REVIEW

VOL. XX. No. 7.

ST. JOHN, N. B., DECEMBER, 1906.

WHOLE NUMBER, 235.



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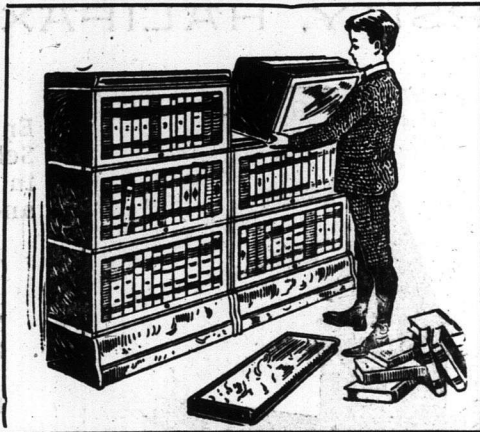
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THE next Academic year begins September 26, 1907, when Fourteen County Scholarships will be vacant. These Scholarships (value \$60 each) will be awarded on the results of the Entrance Examination to be held July 5th, at all the Grammar School centres. The Wilmot Scholarship (value \$300) and an Asa Dow Scholarship (value \$90) will be offered in competition in September. The St. Andrew's Scholarship will be awarded in September by the Fredericton Society of St. Andrew. The Departments of Civil and Electrical Engineering are open to properly qualified students.

Copies of Calendar containing full information may be obtained from the undersigned.

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INCORPORATED 1891.

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ST. JOHN, N. B., DECEMBER, 1906.

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G. U. HAY,
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Editor for Nova Scotia.

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Address all correspondence to

THE EDUCATIONAL REVIEW,
St. John, N. B.

"Come now! let us go unto Bethlehem, and see this thing which has come to pass, which the Lord made known to us," said the shepherds, when those angel songs had ceased to break the starry silence. Their way would lead them up the terrible hill, and through the moonlit gardens of Bethlehem, until they reached the summit of the grey ridge on which the little town is built. On that summit stood the village inn In the rude limestone grotto attached to it as a stable, among the hay and straw spread for the food and rest of the cattle, weary with their day's journey, far from home, in the midst of strangers, in the chilly winter night—in circumstances so devoid of all earthly comfort or splendour that it is impossible to imagine a humbler nativity—Christ was born. CANON FARRAR—*The Life of Christ*

A HAPPY CHRISTMAS AND NEW YEAR to all the readers of the REVIEW! May it be a season of great joy to teachers and pupils alike. Christmas is the birthday of the world's greatest teacher. It is the Christ-child, such a one as our picture represents this month, that appeals to children. In all the joyousness of the season, in the giving and receiving presents, in all Christmas exercises, let the children constantly feel that Christ is the best gift of all. It was He who took children up in His arms and blessed them; who said, "Of such is the Kingdom of Heaven." How this gift surpasses every other! Let this thought pervade the Christmas spirit.

Children liked to be loved and remembered at this time, and the teacher can make the schoolroom a bright and happy place, directing the Christmas spirit so that it shall reach parents who are indifferent to the needs and wishes of children, enter homes where poverty is always present, and also homes where the abundance of gifts make children indifferent to the real meaning of the season and indifferent to the needs of poorer children. The teacher can help rich and poor alike to share in the large bounty of love and good-will.

READ the "Business Notice" on another page.

MR. MATTHEWS' article in this number is an excellent introduction to geometry in the lower grades.

CHIEF SUPERINTENDENT Dr. J. R. Inch announces on another page that a new Drawing book has been authorized for New Brunswick schools, and also outlines the manual training courses for teachers for the next term.

THE Natural History Society of New Brunswick has recently moved its collections and library into a commodious building, opposite the high school, St. John. This live and useful society will now have the opportunity of doing much more effective work in displaying its valuable collections.

THE House of Lords has made so many drastic amendments to the British Education Bill that the Government has decided not to accept them. This means that the Lords will probably yield, and pass the bill in something near the form it went through the House of Commons.

SEATTLE is to have the next "World's Fair," in 1909, to be known as the Alaska-Yukon-Pacific Exposition. The site comprises 255 acres of the campus of the Washington University of that city, and the substantial buildings to be erected will remain as the property of the university, to be used for educational purposes after the fair closes.

DR. J. FLETCHER, Dominion Entomologist and Botanist, publishes in the last number of the *Ottawa Naturalist* a valuable contribution on School Exhibits of Pressed Plants. He points out that the proper selection and pressing of plants is an educational exercise of much importance, teaching patience, judgment, interest in and knowledge of one's surroundings. This is one of a series on Nature-study—now numbering thirty-eight—which embraces many excellent articles by Canadian naturalists.

THE next session of the Summer School of Science will be held at Riverside, Albert County, from July 2 to 19. Teachers and other students should early form their plans to take one or more courses, preferably one. The Secretary's announcement will be found on another page. If the teacher who has resolved to attend will lay out a course during the approaching vacation, and devote all the spare time possible to read and study for it, much can be accomplished during the session. The fine scenery, especially in the neighborhood of Riverside, and the varied resources of Albert County, will furnish a great object lesson to students.

"How to deal with the bad boy" is a perplexing question to those who have bad boys brought to them, charged with misdemeanours. Perhaps a note from Judge Lindsey, who has had much success in dealing with this problem in the West, may be of service:

Five boys under fourteen committed an after-midnight burglary. Judge Lindsey talked with them for more than half an hour. It was not a lawyer's talk, nor a schoolmaster's, just chummy. He was nearly through before his purpose was ap-

parent. Then he said to No. 1: "You are weak. It would be as easy for you to be good as bad if anybody would lead you. You come to my party for weak boys on——." To Nos. 2, 3 and 4: "You have weak streaks, but you are forming habits of strength along bad lines. I must see you at four o'clock Monday." To No. 5: "You are wicked, very wicked; you have gotten all these fellows into trouble," and then he took him in hand.

The Madonna of the Chair.

The subject of the REVIEW's Christmas picture is the Madonna of the Chair, by Raphael. The Italian word Madonna, in old times used in addressing a lady, is now applied almost wholly to the Virgin Mary. The Madonna of the Chair represents the Virgin seated, holding her child on her knee and encircling him with her arms. By her side is the young John the Baptist, his hands clasped in prayer, and holding a cross, as if to herald the death of our Saviour. While the mother and child look at us out of the picture, his gaze is fixed in adoration upon the infant Saviour.

An old legend about this picture relates that Raphael, having come suddenly upon a beautiful family group, took them as a model, and sketched the figures rapidly upon the head of a cask, thus accounting for the circular form of the picture. The composition is marked by the exquisite beauty of the faces—the mother's head laid tenderly against that of the child looks at us with the peaceful, happy look of a mother. The rounded face and chubby limbs of the child denote perfect health, and in this he is like other healthy children; but in his large eyes there is an earnest, even grand, expression which painters always sought to give to the child Jesus to mark the difference between him and the ordinary children.

If one studies the picture carefully, it will be seen how curved and rounded are all the lines within the circle. The harmony of the lines thus make a perfect expression of the peaceful group, whose centre is the infant Saviour; and whether the legend above has any foundation or not, the home-like scene impresses us with its beauty and tenderness. Note the circles of light around the heads, used by painters to denote holy persons.

The mother wears a handkerchief of many colours over her shoulders, and another on her head.

The picture is suggestive of the happy Christmas season, when the eyes of the Christian world are centred upon Christ and upon home.

How One Teacher Uses the Pictures.

The following letter from Miss E. Rogers, principal of the Girls' High School, New Westminster, B. C., shows what may be done to decorate a school-room and at the same time be a means of discipline:

"May I tell you how I have made some of the pictures that come with the REVIEW useful? Every month that I have no tardiness to record I give the school a framed picture as a prize. For this purpose many of these pictures are admirably adapted. Our walls are now made attractive with pictures, and tardiness in my division is almost unknown. Although the framing of the pictures is a little expensive, I have been repaid by the punctuality and increased interest among the pupils."

We would like to hear from others who are using these pictures. The cost in production and extra postage each month is considerable, but that would be cheerfully borne if we knew that the school-rooms are being brightened by their influence, and that the interest of the scholars is being newly awakened to their work, and that they are making the beginnings in the study of art.

The framing of the pictures need not necessarily be very expensive. In the December, 1905, REVIEW Mr. T. B. Kidner gave some very excellent drawings and suggestions, which, if followed out, would be a certain stimulus to manual work, and at the same time give the pictures a greater value, because the work could be done by the scholars themselves under the teacher's direction.

An Advisory Board.

During the late session of the Nova Scotia legislature a change was made in the Education Act, providing for the appointment of an advisory board. Its duties are simply to advise the Council of Public Instruction and the Superintendent of Education in regard to school books and apparatus; qualifications and examination of teachers; courses of study for the public school and the standard for admission to the county academies and high schools; the classification, organization and discipline of the normal school, county academies and the public schools; and other educational matters as may from time to time be referred to them by the superintendent or the council.

The appointment of this board has been completed, and their names will be found on another page. Five members of the board are engaged in educational work in the province, and their names are a sufficient guarantee of the wisdom of the choice. The two others, Messrs. Cameron and Donkin, are practical business men and leaders of

industry. The advice and assistance of such a board of experts cannot fail to add considerable weight to the educational councils of the province.

Kindness to Animals.

The minister of the interior of the government of Holland has sent out a circular to the heads of all schools in that country asking them to co-operate with the government in a movement to protect animals and birds. He wishes it to be impressed upon the minds of school children that it is mean and cowardly to be cruel to animals. To comply with the minister's request school principals and inspectors are holding conferences with all classes of teachers as to the best method of accomplishing the desired end. Laws are also in preparation to punish more stringently than heretofore all who are guilty of cruelty to animals.

The minister ordered large colored plates of the useful birds and of the insects they destroy to be distributed throughout the country with pamphlets showing the value of the birds in agriculture and forestry. It is explained how impossible it is for man to cope with the minute insects that prey on plant life, and that only the birds can save many valuable trees and much vegetation from destruction.—*American Primary Teacher.*

First Grade Number Games.

Ten or fifteen are the highest numbers that children in the first grade should work with. Simple counting games and games in adding and subtracting may be used with good results.

One very good plan is to take the nursery rhymes and fables that are familiar to nearly every child, and have them enacted by the children, bringing in, if possible, practice in counting. One of the rhymes which may be used in such a way is the one beginning "one, two—button your shoe; three, four—shut the door," etc. Have the children go through every motion indicated by the phrases. It will not take long for them to learn to count rapidly.

A simple game for practice in addition is this: A child may group as many as ten or fifteen children in two's, three's, one's, four's, etc. The object is for another child to add them by groups, giving results only as he goes along. For example, if the groups are in this order: three—two—four—one—three: the pupil adds this way, "three, five, nine, 10, 13." This is merely a suggestion, for the idea may be carried out in several ways.—*School Education.*

Our Climate.

PROFESSOR L. W. BAILEY, LL. D.

The climate of a country is one of its most distinctive features, and, though we may at first fail to fully recognize the fact, is intimately associated with its entire history and development. Thus, climate necessarily controls, in a large degree, the natural products of the country, whether of the field or forest; it involves the conditions of temperature, both as regards the average and the extremes, and therefore the fitness of the region for human habitation and for the purposes of husbandry. It includes also the conditions of humidity, and is hence intimately connected with both the amount of rain-fall and its distribution. Through the latter it determines also the nature and distribution of plants and animals. It affects, favourably or otherwise, the physical and mental development of a people, and determines, to a large extent, the direction in which the efforts of the latter are to be employed.

The climate of Acadia is well worth some consideration, and is the result of the combined influence of many factors, which may be separately noted.

Of first importance, of course, is our *geographical position*. This, between the parallels of 44° and 46° north latitude, determines our relations to the sun, the obliquity of the latter's rays, the length of day and night, and the relations of our seasons. Our longest day (June 21) is one of about sixteen hours, our shortest (December 21) less than nine hours. Our seasons may be roughly divided into two of equal length—a cold season from November to May and a warm one from May to November. This corresponds to periods of general frost and its general absence, though such frost may, and often does, occur within any month of the year. The extremes of temperature are 100° Fahr., though rarely attained, and —40°, also of infrequent occurrence. Even when the days are hot, the nights are generally cool, and, especially during the winter season, great changes, in some instances amounting to 90°, may occur within twenty-four hours. These latter are usually the accompaniment of cyclonic storms, which will presently be more particularly considered.

A second element in our climate is that of *humidity*. No portion of New Brunswick is very far from the sea, and probably every part feels its influence. Of course this is especially felt directly upon the sea-board, where the excess of moisture is

so frequently emphasized by the prevalence of fogs. These are the direct result of the chilling influence of the coastal waters, a portion of the Arctic current coming down from Baffin's Bay, upon the moisture-laden winds blowing inward from the Gulf stream, and are almost sure to develop whenever south-easterly winds are prevalent. Their effects are to be seen in a marked reduction of temperature, giving to St. John and other points upon the coast a delightful coolness at a time when the inhabitants of the Atlantic cities farther south are sweltering beneath the scorching rays of the mid-summer sun. They also, but in a different way, tend to soften the severities of the winter season upon the coast, determining not only a more open fall and earlier spring, but a much warmer average winter temperature, with less marked extremes, than is to be found in the interior.

But that interior is also affected by the fact that it is nowhere very distant from the coast. Sea fogs, it is true, do not penetrate far inland, being confined to the immediate sea-board by the ranges of hills which lie along and parallel to the latter; but the winds are not thus stopped; and, as they blow northward, or, in the case of the Gulf shore, to the westward, they carry the moisture with them, even though no longer visible, and it is this moisture which is the source of supply for all our rivers, streams and lakes. It is this which makes New Brunswick such a well watered country, and which, indirectly, has had so much to do in determining the development and the occupations of its inhabitants. Indirectly, it determines the depth of our snows in winter (an average of about five feet in the forested portions when at its maximum), the alternations of flood and low water as the seasons succeed each other, together with the character and distribution of our native plants, the abundance of springs and many other important consequences.

A third determining factor in our climate is the *irregularity of its surface features*. Variations of altitude correspond in a general way to differences of latitude, and though no portion of Acadia can properly be called mountainous, there is sufficient difference of level to make quite noticeable a difference of temperatures in different places, as regards both the daily and seasonal variations, and the determination of extremes. These differences are reflected in both the character and course of vegetation about St. John. Spring flowers are to be gathered on the southern coast nearly a fortnight earlier than in the interior at Fredericton, the range

of the Nerepis hills confining the influence of the sea-board to their southern side, while later in the season the clear skies and consequent greater warmth of the tract north of these same hills, stimulating plants to more rapid growth, enable them not only to make up for what time has been lost, but to continue to advance with much greater rapidity. Travellers by rail from Fredericton to St. John in the mid-summer months often pass in a little over two hours from a temperature of 98° to one of 50° or less, and the drop is distinctly, and sometimes quite suddenly felt in passing from one side to the other of the Nerepis hills. So, in the opposite direction, greater extremes characterize the climate of Woodstock than that of Fredericton, and of Edmundston as compared with Woodstock. The summer season also grows shorter as we go northward, though this, no doubt, is partly due to increase of latitude. Upon the highlands of Northern New Brunswick remarkable variations are also to be noticed in the temperatures of day and night, the heat at mid-day being such as to be almost unbearable, with the hot air actually quivering above the heated surface of rocky ledges, while the temperature at night may be not far above the freezing point.

Finally, the *direction and character of the winds* have much to do in determining the nature of the climate as regards both Acadia as a whole, and of one part as compared with another. It would not be in place, nor have we space to discuss here at length, the complicated subject of atmospheric circulation (for this the reader must consult some one of the several admirable text-books of Physical Geography, such as Davis, Tarr, Dryer or others, published within the last few years), but the main facts are briefly these. Air, as a highly attenuated fluid, is easily moved. It is also easily heated or cooled, partly by the direct action of the sun, but to a much greater extent by the surface on which it rests. Land surfaces, especially in summer, heat the air above them, while that resting on water surfaces is relatively cool. Heating of the air, by whatever means, makes it lighter by expansion, while cooling makes it, by condensation, relatively heavier.

Hence, warm air tends to rise, producing diminished pressure in the heated area, while cold and heavy air, with greater weight, produces increased pressure. Hence, a movement of the air, a wind or current, from the area of greatest to that of least pressure. It is by means of observations made on these variations of pressure, by means of the

barometer, that it becomes possible, as in the daily forecasts of the weather, to determine the origination and path of storms. By telegraphic reports received from every part of the continent, the officers of the meteorological bureau are able to parcel out the surface of the continent into areas of high and low pressure, and to issue daily weather maps exhibiting the latter. The movements in the position of these areas are also subject to certain definite laws which cannot be discussed here. The areas are commonly known as *cyclonic* and *anticyclonic* areas, as a recognition of the fact that, in addition to some general forward movement, there is also in each case something of a circular or spiral movement similar to that which is developed about the outlet of a bath-tub in the escaping water, or in the smoke discharged from a tobacco pipe or locomotive. In an anticyclonic area the air, slowly descending from aloft, moves from a centre outwards in all directions, that centre being one of low but rising temperature and increased pressure. Any moisture present in the air is taken up, the sky remains clear, and, as dry air is heavier than damp air, it presses harder on the mercury of the barometer, and this rises accordingly. On the contrary, in the region traversed by a cyclone, the air moves inwards to a centre of relatively warm temperature, but diminished pressure. The air, saturated with moisture, becomes lighter and rises. Clouds and rain are determined, and the barometer falls. Finally, cyclonic and anticyclonic areas, or areas of low and high pressure, follow each other across the continent along approximately definite paths, either coming up the coast or crossing the region of the Great Lakes and passing out to sea. In North America the direction of the movement in the whirl, as a whole, is from west to east, following the direction of the hands of a watch. This explains a very common error. We commonly regard our storms as coming from the east; in reality they come from the west. The reason for this is readily understood. While the whirl, as a whole, is moving eastward, the easterly side will be the first to be felt, and here the flow, being towards the centre, will be from east to west, bringing with it the moisture from the ocean; but as the whirl passes on we soon experience the effect of the opposite side which is also moving towards the centre. Thus while the area, as a whole, moves eastward, we experience first a flow from the east with fog and rain, followed later by a sudden change to a flow from the opposite side, with strong northwest winds and a clearing atmosphere. Such movements,

finally, may be slow and gentle, or they may be rapid and violent, determining *storms*. These latter rarely attain, in the Maritime Provinces, the magnitude of western or tropical cyclones, even in the winter, but "blizzards" are by no means unknown, and occasionally we have, over limited areas, and as the result of local conditions, storms which, in intensity and destructiveness, may well compare with those of less favoured regions. Thus, in the month of October, 1869, there occurred what was long known as the Saxby gale, occasioning a large amount of loss, especially in the forest lands and along the coast, in the former instances prostrating great numbers of trees along narrow, parallel bands, and on the latter, through the accompaniment of an extraordinary tidal wave, flooding the marsh lands of Albert and Westmorland counties. Somewhat later a storm of similar violence, but more local in area, was witnessed by the writer in the vicinity of St. Leonard's, Madawaska, when, in the course of a few minutes, nearly all the houses in a little French village were unroofed. A similar result occurred in the case of a storm which, not many years ago, passed over the settlement of "the Barony," in York County.

The foregoing remarks and illustrations have had to do almost exclusively with New Brunswick. In Nova Scotia the conditions are essentially similar, but modified by its more insular character and lower reliefs. Fogs reach almost every portion of the peninsula and characterize the coast even to a greater degree than in New Brunswick, statistics showing for a summer mean of two years (1864 and 1865) 6.7 foggy days for Halifax as against 5.3 for St. John, while the average number of rainy days was for the former 15.75, while that of the latter was only 7.8. The mean summer temperature of Halifax, as given in the Canadian Year Book for 1868 was 60.8, that of St. John 58.1.

The influence of barriers to atmospheric flow is well illustrated in the case of the North Mountains, and is alluded to by Longfellow in describing the village of Grand Pre,—

"Away to the northward
Blomidon rose, and the forests old, and aloft on the mountains
Sea-fogs pitched their tents, and mists from the mighty Atlantic
Looked on the happy valley, but ne'er from their station descended."

It is this feature, combined with that of its soils (a subject to be discussed in a later chapter) which has made the Annapolis and Cornwallis valleys the "Garden of Nova Scotia."

Geometrical Drawing.

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Principal Macdonald Manual Training School.

This and the following articles have been prepared at the request of the Editor, with a view to assisting teachers to introduce geometrical drawing in Grades V, VI, VII and VIII of the common schools. The object in so doing is not only to give the pupils practice in mechanical drawing, which of itself is of great educational value, but to form an introduction to the study of geometry. Facts or principles learned through *doing* are likely to remain much longer in the memory than those obtained through reading. The pupil will, therefore, as a result, on commencing to study geometry, find the work very much simplified.

A number of exercises have been arranged for each grade, containing sufficient principles to cover a year's work. The accompanying sheet shows those intended for Grade V. The method of construction is briefly stated for the benefit of the teacher; but the teacher should, in teaching the principle of an exercise, apply it practically by making up some interesting little problem in plotting out or designing. This is most important, for, if taught otherwise, the object of the lesson will be beyond the child's comprehension, and therefore lost. The few examples given after the exercises will show what is meant, and the earnest teacher will find endless material in the schoolroom, playground or garden on which to base other problems. It will be seen that many of them can be given to the children in something of the form of puzzles, which, as we all know, have a great fascination for children. This feature makes the subject one of the easiest and most interesting to teach.

The methods of using the ruler, set squares and pencil have been fully explained in a former series of articles dealing with "Drawing in the Lower Grades," (Nos. 211 to 217, December, 1904, to June, 1905). The only new instrument introduced at this stage is the compass, which the children should be taught to use properly from the first. In drawing circles, no part of the fingers should touch either leg of the instrument, but the small, straight piece above the hinge should be held lightly between the thumb and first finger. When taking off measurements, both hands may be used, as with dividers.

Great care should be taken with the drawing, given lines and resultants being drawn with firm black lines, while working lines should be subdued as much as possible. These can then, if necessary, be cleaned out afterwards.

All new terms, such as radius, arc, circumference, degrees, segment, etc., should be carefully explained, and simple definitions given as new figures are introduced, *but no attempt should be made to prove the truth of any problem, except by optical demonstration, until commencing to study theoretical geometry.*

FIG. 1. *To bisect a straight line.*—Place the point of the compass on A, and with any radius more than half of the line, describe an arc. With B as centre and the same radius, describe another arc. Join the points of intersection C and D by a straight line cutting AB in E. Then E is the middle point of AB.

Sample exercise on above. The line A—B represents a form to hold four children. Mark off an equal space for each child. (Bisect the line, then bisect each half).

FIG. 2. *To bisect an arc or regular curve.*—The same construction as in Fig. 1.

Sample exercise: The curve AB is the arch at the top of a door or window. Find the centre point from which to hang an ornament.

FIG. 3. *To bisect a straight line by means of set squares.*—Place a ruler under the given line, and rest a set square on it with one acute angle at A (30° is the most convenient). Draw the line AC. Reverse the set square, and with angle at B draw the line DB. Place the ruler above the line and with set square beneath, similarly draw AF and EB. Join GH. I is the middle point of the line.

FIG. 4. *To draw a straight line at right angles to a given straight line,* from a point at or near the middle of the given line.—With O as centre, and any convenient radius, mark off C and D equidistant from it. From C and D as centres, and radius greater than CO, describe arcs intersecting at E. Join EO, which will be at right angles to AB.

Sample exercise: The line AB represents a level piece of ground. At the point O we wish to erect an upright line for a flag pole.

FIG. 5. *The same as Fig. 4,* but from a point at or near the end of the line. With the given point O as centre, describe an arc nearly a semicircle. From C; and with the same radius, mark off D (60°). From D, with the same radius, mark off E (another 60°). Bisect DE (as in Fig. 2) by arcs at F. Join FO, which will form the right angle with AB.

FIG. 6. *The same as Fig. 4* (Builders' method).—Let AB be the given line and B the given point. Divide AB into four equal parts, and produce AB

to C, making BC equal to one part. With B as centre and 3 parts as radius, describe an arc. With A as centre and 5 parts (AC) as radius, describe another arc intersecting at D. Join DB, which is the required line.

Sample exercise: AB is the front or street line of a house. Draw the side DB to be perfectly square with it.

FIG. 7. *The same as Fig. 4,* from a point over, or nearly over, the centre.—Let AB be the given line and O the given point. With O as centre and any radius long enough to cut the line, draw the arc cutting AB in C and D. With C and D as centres, draw arcs cutting at E. Join OE cutting AB in F. Then OF is at right angles to AB.

FIG. 8. *The same as Fig. 4,* from a point over, or nearly over, the end of the line.—Let AB be the given line and O the given point. From O draw any line OC towards A. Bisect OA in D. With D as centre and radius DO, describe a semicircle cutting AB in E. Join OE. Then OE is at right angles to AB.

Exercise: By drawing the semicircle in various positions the children may be shown that the angle in it is always a right angle, by applying the 90° angle of the set square. No further proof is required at this stage.

FIG. 9. *The same as Fig. 8.* Another method.—With A as centre and radius AO, describe arc OC. With B as centre and radius BO, describe arc OEC. Join OC, cutting AB in D. Then OD is at right angles to AB.

FIG. 10. *The same as Fig. 9.* Point beyond the end of AB.

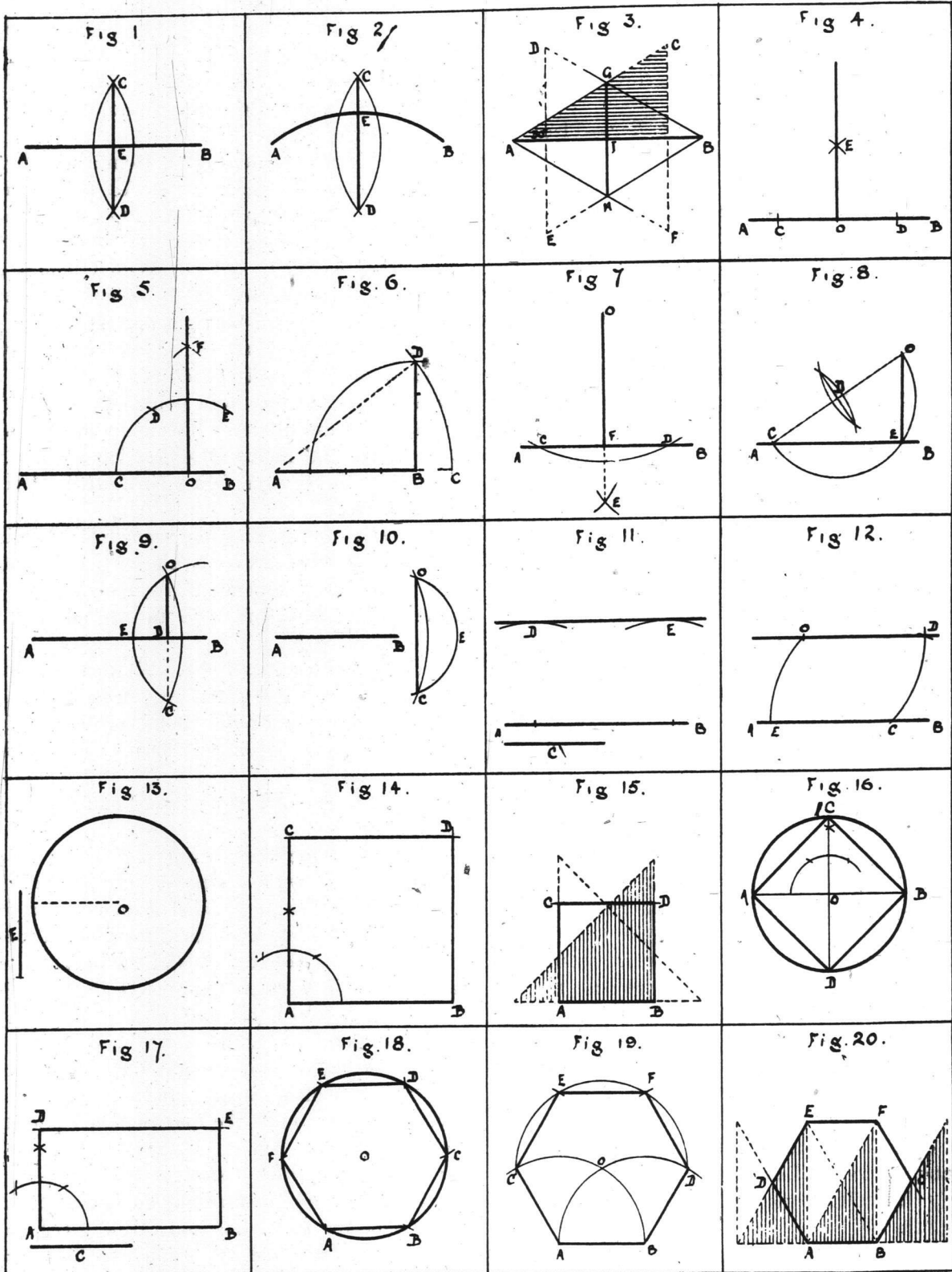
Construction the same as Fig. 9.

FIG. 11. *To draw a straight line parallel to a given straight line at a given distance from it.*—Let AB be the given line and C the given distance. Take any points near the ends of the line, and with radius equal to C, draw the arcs D and E. Join across the tops of the two arcs. Then DE is parallel to AB.

Exercise: Draw two straight lines three inches long and two inches apart. Between them draw two other lines, so that the four shall be equidistant and parallel.

FIG. 12. *To draw a straight line parallel to a given straight line and through a given point.*—Let AB be the given line and O the given point. With O as centre and any radius reaching nearly to B draw arc CD. With C as centre and the same radius draw arc OE. Measure OE with compass

GEOMETRICAL DRAWING GRADE V.



and mark off CD equal to it. Join OD. Then OD is parallel to AB.

Exercise: AB represents the edge of a grass plot. I wish to set off another parallel to it commencing from O.

FIG. 13. *To describe a circle with a given radius.*—From any point O with radius equal to E, describe the circle.

A good exercise at this stage is to start with a circle of about $1\frac{1}{4}$ inches radius, and draw a series of concentric circles, lessening the radius by $\frac{1}{4}$ inch each time. The smaller they get, the more difficult to get a good even line.

FIG. 14. *To describe a square on a given straight line.*—Let AB be the given line. At A construct a right angle BAC cutting off AC equal to AB. With B and C as centres and radius AB, describe arcs cutting at D. Join CD and BD. ABCD is the required square.

Exercise: Demonstrate with set square that all the angles are right angles, and with compass that all sides are equal, and educe an easy definition.

FIG. 15. *The same as Fig. 14.* With set squares.—Place the ruler under AB, and with set squares draw right angles at A and B. Mark off C and D equal to AB and join.

Exercise: Join AD and BC. Measure them with compass. If correctly drawn, they will be equal.

FIG. 16. *To inscribe a square in a given circle.*—Draw any diameter AB. At centre O erect perpendicular cutting circumference in C and D. Join AC, CB, BD and DA, which gives required square.

Exercise: O is the point in the middle of a garden. Lay out a square plot so that the corners shall all be equidistant from O.

FIG. 17. *To construct an oblong.* Length of sides given.—Let AB and C be the given sides. At A and B erect perpendiculars, making AD and BE each equal to C. Join DE, or follow the same construction as Fig. 14.

FIG. 18. *To inscribe a regular hexagon in a given circle.*—From any point A on the circumference, step off AB, BC, CD, DE, EF and FA all equal to the radius of the circle. Join the points with straight lines.

Exercises: 1. Make a six-pointed star. (Mark off points as above, and join alternate points AE, EC, CA, BF, FD and DB).

2. Draw a circle with six lenses.

FIG. 19. *Construct a hexagon on a given base.*—Let AB be the given base. With A as centre and AB as radius, describe arc BOC. With

B as centre and same radius, describe arc AOD. With O as centre and same radius, describe arc CEFD. Cut off CE and DF each equal to AB. Join BD, DF, FE, EC and CA.

FIG. 20. *The same as Fig. 19.* Set square method.—Place ruler under AB. With set square on ruler, 60° angle at A, draw AF. Slide set square to B and draw BC. Reverse set square and draw BE and AD. Draw verticals at A and B, cutting slanting lines at E and F. With 60° angle draw lines back from E to D and F to C.

The remaining dotted lines show the various positions of the set square.

Sunshine in the Shadows.

"Our idea has been to carry the good cheer into the home," writes Maud Ballington Booth in the December *Delineator*. "Christmas is pre-eminently a home festival. It may be good, under some circumstances, to call the poor to a great dinner, and undoubtedly much joy has been given to little ones by the decking of the Christmas tree, but so far as our effort is concerned, we feel that we can do the most by bringing brightness into destitute homes. However good the dinner, it is forgotten in the hunger of to-morrow; and the bright festival around the Christmas tree makes the fireless home the more dreary when the little ones return to it. This thought has prompted us to spend our Christmas funds in sending food, fuel, clothing and toys into the home, and adding all the comforts possible to these cheerless lives, not only on that one day, but during the winter season. The oranges and toys, the Christmas stocking and the turkey, together with a good supply of coal with which to cook it, mean warmth to the chilly garret and will gladden the children's Christmas day, but what a comfort during the remaining winter days will be the warm overcoat and good strong shoes to the little ones who had before to shiver to school in broken shoes and thin cotton garments.

"Thousands of families are helped by the Salvation Army Volunteers in our big cities, and while they are thus caring for the many poor, I have undertaken in my special work the playing of 'Santa Claus's Partner' to the destitute families of the men in prison. In our Volunteer Prison Department we have chronicled the names and ages of all the little ones who are registered in our Christmas book, and it takes us a whole month to prepare for the eventful day. With the money generously sent in from many sources, I buy several thousand dollars' worth of warm garments. Last Christmas we used seventy-five dozen pairs of children's stockings. To all those families at a distance we send the Christmas boxes carefully packed, but to those in New York City we deliver personally from our express wagon on Christmas Eve the gifts that are to gladden the little ones."

Visualization.

MRS. CATHERINE M. CONDON.

Visualization has been defined as the local memory of the eye, although it really includes much more. The ability to make a voluntary and sustained use of this power—visualization—lies at the very foundation of a progressive intellectual life, and is indispensable to the artist. Like every other mental endowment, it varies, both in kind and degree, in different individuals. Some, for example, never forget a face once seen, whether it be the beloved features of a departed friend, or the living face itself, which is instantly recognized after, it may be, years of absence. A swift comparison is made between the object presented to the senses and the mental image stored up, and perhaps long dormant; the visualized image, in a flash, is compared with the friend's face and form, and this results in recognition. The process is as swift as it is subtle. But the recognition of an object presented to the sight is the simplest manifestation of this power, although it is not so simple as may at first appear. A child sometimes sees an object many times before he recognizes it at once, and with certainty, from the mental image—the product of visualization. How vague and defective the first visualized images in the mind of a child must be, may be gathered from the crude pictorial representations made by children. After making due and large allowance for the want of manual skill, lack of facility in the use of language, and general inability to express ideas, one is still surprised to find how blurred and incomplete mental vision is, not only in the child, but even in persons you would judge to be capable of visualizing, recognizing and reproducing, in some one or other of the expressive arts, their mental images with clearness and precision. The mere instinctive and untrained use of visualization is very deceptive, and, by consequence, largely inoperative as an educational force.

Take the child who drew a mouse on his slate, for example; a circular motion of the pencil gave the eye a straggling line the tail, and there you have the picture of the mouse; and what is so strange and thought-compelling is, that the child was satisfied with the crude production. It may well be that the glancing eye and tense, long-drawn tail were about all that impressed themselves on the child's brain, for however awkwardly drawn the other parts of the mouse might have been, had they been drawn at all, they could not have been repre-

sented without having left some trace on the mental retina.

Take now an example of splendid visualization in Turner, the famous painter, in his wonderful picture, "A great storm from a railway carriage." The incident was related by a young lady who was in the same carriage with the painter and his friend. The storm was a fearful one. Turner, who had been watching it, asked permission of the lady to open the window and to look out, so as to have a larger view of the storm. After gazing with great intensity on the tempest, by which the very heavens seemed gashed and rent asunder by the lightning flashes that were almost continuous, he drew in his head and shut the window, after allowing the lady, also at her urgent request, a brief survey, for it was now raining in torrents, then sat down, and, leaning back in his seat, closed his eyes for some time. What was he doing? He was, by an intense, conscious and combined effort of the intellect and will, reproducing the whole scene, and fixing it so vividly and so ineffaceably that it was possible for him to review it at pleasure; and from the stored-up mental image his marvelous skill as an artist enabled him to give the splendid vision in concrete form for the delight of others—a supreme result of the trained power of visualization.

This power of visualization exists in kind, although differing in degree, in every one; but in the artist, poet, and in writers of marked descriptive ability, it is present in large measure, so that the reader is forced to see the picture as presented.

Who, in reading "The Ancient Mariner," has not felt the power of that cold, compelling eye that arrested and held the unwilling wedding-guest? And how plainly Goethe makes us see, scene after scene, in which Mephistopheles, Faust and Margaret figure.

To him who has raised visualization from the merely instinctive and casual to an art, practised at will, the life of the intellect is rich and glowing with vivid conceptions. Great inventions stand out, clear as crystal, in the inventor's mind long before they are fixed in material form, and things that are not are to him as though they were.

Now how shall we develop this amazing power of the human mind in our children so that it may be of real service in the practical business of life? How, in Froebel's words, shall we enable the child to make the outward, inward, and the inward, outward? How begin the process, keep it up, and render it cumulative? The retina receives the

image instinctively, but unless the object be observed, no clear abiding impression is left on the brain. It is bad enough to lose even one single impression of value. We will deal here with the child in the primary school. The teacher must understand that, in too many cases, he will have to do work that should have been the business of the nursery. Speech, the first of the expressive arts, must be clear, articulate and have definite meaning; this involves careful looking at some definite object of interest to the child, say a cat. Ask those who have a cat of their own to say so; select some of the brightest to tell all they have observed about their cat; then select a dull child, draw out what he knows, and delicately help him to express his struggling notions in words plainly spoken. Be helpful to his halting, incoherent speech. Let him feel the faint stirrings of his own mind, no matter how dull and feeble they may be, and let him express them in speech, even if, at first, he only repeats after you, a little, easy sentence that you have framed. Remember, the first intelligent efforts of the child are purely imitative, and must be helped. Do not be afraid of asking questions that are too simple, for you have before you a rather complex problem, viz., careful observation to secure future recognition of the object, the forming of a clear image in the untrained mind, and the representation, in concrete form, of a concept in the young mind. The natural, and therefore the easiest method of expression, is by means of audible speech.

Ask questions about the cat's legs, its tail, how it differs from that of a dog, or a horse, or a pig; about its paws and claws, and what effect the temper of a cat has upon them; on the lay of the fur, whether it is kind to rub pussy up the wrong way; whether *they* are not vexed if their faces are rubbed up carelessly when they themselves are washed in the morning.

Now for visualizing; tell them to shut their eyes and try to see a fine black cat. Watch the little faces and you will observe striking differences in expression. Some will visualize the black cat so vividly that they will laugh right out with delight. Take pains to find out how much of the black cat they really see; others will have no mental vision of the black cat, or, indeed, of any other cat. These have been neglected, and must be helped with patient kindness. Find out some object that they know well; let them talk about it till they are full of interest; then get them to shut their eyes and try to see it. If they can see it, let them describe it,

and help them to clear up any vague or incorrect impressions.

This exercise must not be kept up too long, or the tender brain may be unduly strained. Put a rough sketch of a cat on the board, without one unnecessary stroke, and let them draw it on their slates; it will not amount to much as drawing, but it will help them to a clearer mental image. Then write in plain script the word *cat*, and let them see it is a symbol so easily and quickly made. If you set about this in earnest, and succeed in interesting the children, you will have at least given them the power of calling up one clear mental image; the desire to make a representation (rough, it must be granted) of what appeals to them, in "the universal language of the eye," and also the power of expressing the idea in language more or less fitting, and later on in forms more or less artistic. This is but a small and feeble beginning in the art of *conscious* and *voluntary* visualization, but it is a beginning on sound principles suited to the mind of the child. Those principles may be applied to every subject at every stage of progress; the result will be to gain the power and habit of correct and vigorous thought.

A Lesson in Decelt.

She is the daughter of a grammar school principal in Colorado Springs. Her first day in school she whispered and was kept after school. The same on the second day. The third, the same. The fourth day she came home on time. No after school that day. She was beaming with delight. "Oh, mamma, I've learned how to do it. All I have to do is to whisper when teacher's back is turned."

"Three knots an hour isn't such bad time for a clergyman," smilingly said the minister to himself, just after he had united the third couple.

The publishers of Webster's International Dictionary have just issued a handsome thirty-two page booklet on the use of the dictionary. Sherwin Cody, well known as a writer and authority on English grammar and composition, is the author. The booklet contains seven lessons for systematically acquiring the dictionary habit. While it is primarily intended for teachers and school principals, the general reader will find much of interest and value. A copy will be sent, gratis, to anyone who addresses the firm, G. & C. Merriam Company, Springfield, Mass.

Some Criticisms of Our Methods of Teaching.

BY PRINCIPAL CHAS. D. RICHARDS, A. B.

[Read before the York County Teachers' Institute, Fredericton, October 11, 1906.]

One of the striking characteristics of present-day Canadian sentiment and Canadian expression is that of self-gratulation upon the wonderful advancement which we are making in all the various phases of life. This is especially noticeable in respect to our commercial and industrial activity. It is a favourite theme of writers and speakers, and everywhere it touches a responsive chord in the spirits of all loyal Canadians.

Co-existent with this commercial and industrial progress there is also an intellectual advancement, which, while receiving less general public attention, may be considered with an equal measure of pride and gratification.

We, as teachers and as a part of the educational life of New Brunswick, may reasonably claim that we are not behind in this general advancement. The schools of to-day are so far ahead of those of a quarter of a century ago that even the most blind and stubborn of our chronic grumblers cannot but admit their superiority.

But while thus in a broad and general sense we easily perceive a marked improvement, it is not fitting that we should calmly fold our arms, and, with pharisaical complacency, flatter ourselves that there is no further need of, or opportunity for, improvement. Because, on the whole, our schools are better to-day than twenty-five years ago, it does not follow that in all matters of detail they are superior. Far from it. And even were we thus inclined to rest contented with what has been accomplished, to let well enough alone—a supposition which I know is far from being true—such a course would not be possible. On all sides we meet with an array of critics, who are not sparing in their criticisms, those who are as ready to tear in shreds the fondest theories of our experienced leaders in educational thought, as are others to wound the feelings of our new and un-tried teachers with their frequently unreasonable and meddling criticisms.

It is my purpose now to consider more particularly some of our methods of teaching, and to point out in relation to them what are, in my judgment, our improvements, and, on the other hand, what are some of our chief weaknesses. I cannot, nor do I desire, to make reference to all of them, and

there probably will be no natural sequence in the order in which I place them.

First of all, then, I shall call attention to the training of the power of observation. Education has been defined as the harmonious development of all the powers of child nature. We are concerned here, of course, only with the education of the child. Taking that definition as a criterion, I believe that it is only within the last twenty-five years that any very great effort has been made—I do not say how successfully—to meet its requirements, that is, to reach all the faculties of the child. The power of observation is one of the earliest faculties, as it is one of the last that we are systematically training. The natural sciences are the subjects which, more than any others, are instrumental in this development. The practical work which the examination of a buttercup or the preparation of hydrogen necessitates, is undoubtedly educative. In connection with this, I must say that I think we ought to welcome with pleasure the introduction of a comparatively new feature of school work, namely, Manual Training and Domestic Science. They provide a splendid training for the eye and hand, in neatness and accuracy, and, in addition, they have the advantage of being practical.

And yet we are all conscious of the strenuous opposition with which the introduction of these branches is being met. The opposition, also, is not altogether from outside; many teachers, if not actually opposed, are at least lukewarm in their support. This is but natural; they see in it an addition to the already crowded curriculum. But these subjects have come to stay, and all that can be done is to make a re-adjustment or correlation of the subjects so as to provide time for these.

In the second place, it seems to me that the one faculty upon which we are exerting our greatest attention is the reason. To-day we teach mathematics. We need only to compare the present Unitary Method with the old system of Proportion or the Rule of Three. From the earliest steps in number work to the most complex problems in geometry or algebra, every process is carefully reasoned out and explained. Not only in mathematics, however, are we applying the principles of reason. In grammar as well do we find scope for the use of this power. In my opinion, the analysis of a long and complex sentence affords nearly, if not quite, as good an opportunity for exercising the reason.

But it is in the realm of mathematics that reason is pre-eminently dominant. In the teaching of geometry, the deductive method is giving way to the inductive. This is a subject which, for at least seventy-five per cent of our pupils, will have no practical value. It is valuable only from an educative standpoint, and as such should indeed be taught in the way most fitted for the greatest development of power, of reason and of original thought. This surely is the inductive method. And yet, whether the inductive or deductive method is used, it is almost entirely reasoning. Algebra, again, has but little practical value. Here, also, the reason is developed.

Arithmetic, on the other hand, while affording opportunity for training in reason, has an eminently practical value, a fact which I fear we too often lose sight of in our teaching. We treat it much the same as we do geometry and algebra, forgetting that, in this subject, the "how" is of just as great, if not of even greater, importance than the "why."

It is in regard to this subject and the results obtained in its teaching that we meet with some of our greatest criticisms. We are all familiar with them: that the boys of to-day cannot add a column of figures correctly and quickly; that it takes them twice as long to work a simple commercial problem as their fathers, who had only two or three years' schooling, etc. And we know, too, that in many cases these are not idle or unjust criticisms. . . .

I do not mean to say that we do not need to have solutions written out. I believe we should, and carefully written, also. But what I do say is, that we might very well give more attention to the teaching of practical arithmetic. I believe that it is right that pupils should understand the reasons for their various operations at some time or other. I can understand that a pupil ought not to be permitted to subtract 29 from 75 in the old way: 9 from 5 you can't, borrow 1 from the 7, makes 15, 9 from 15 leaves 6, and so on. But I believe that a great deal of time can easily be wasted in continual repetition upon the various reasons for things which might more profitably be spent upon drill in practical work. It may be all very well to manufacture two or three of the multiplication tables, but it seems to me a sheer waste of time to go thus through the whole list. And again, I do not see that it makes so much difference whether a pupil says the tables one way or the other, provided he can say them. The main object is that he should know them, and know them thoroughly; and once he does, it is of

little importance in using them which way he learned them. The great essential in arithmetic is to know how to work practical questions quickly and accurately; and to acquire this ability continuous repetition and drill is needed.

In what I have said in reference to the teaching of arithmetic, I do not wish to be understood as detracting from its value as a purely educative subject, as a means for the development of the reason. Much in the present method should meet with our heartiest approval. But at the same time I do desire to emphasize what seems to me a tendency to carry this method too far, and to emphasize also the need of a greater consideration of the practical side of the subject.

Further, I have felt that there is a growing tendency to apply the reasoning method almost exclusively to each and every subject of the school curriculum. This gives a splendid training for the one faculty, but it means a corresponding deficiency of development in other faculties. Chief among those powers of the pupil, which I believe are thus being sacrificed, is the memory. I am strongly of the opinion that our present-day school may well learn a lesson from the past. We are not making the demands upon the memory which formerly were made, and which I believe we ought to make.

Some of our subjects, such as History and Geography, while permitting the use of reason to a great extent, are primarily memory subjects. These subjects give us certain facts relative to the earth and man's existence upon it. A question naturally arises here: Considering the great number of facts which history and geography present to us, what ought to be the minimum to be required of our pupils who complete the ordinary school course? To read our newspapers and literature, to take an active interest in national affairs, to be an intelligent citizen, it is indispensable that one should have a wide and accurate knowledge of the world's geography, and, though possibly to a less degree, of the world's history. This, then, is the answer, and what does it mean? That our pupils should be expected to know accurately the most important physical features, political divisions, towns and cities, industries and products of all countries, and to know the history of their own country thoroughly, and of the world somewhat more generally, but still accurately.

Next we may ask: How is this knowledge to be obtained? And I would answer: I care not so much *how* it is obtained, provided it *is* obtained.

The reason may be brought into use in many instances, but the memory must be the main resort in the end. Constant drill in memorizing is the keynote.

Here, again, let us employ the reason, the eye, the hand, or any other power which may seem suitable; let us show the sequence of events when such a sequence is not beyond the comprehension of the pupil; but let us not forget the purpose to be aimed at in the teaching of these subjects, and the chief powers to be developed; let us not sacrifice results in order that we may adhere closely to the old time-honored maxim, a maxim which has become almost a fetish: "We must proceed from the known to the unknown."

Were it not that our powers at Teachers' Institutes are somewhat prescribed, I should like to say a few words regarding our text-books in history and geography. At any rate, I trust I shall not be overstepping my privilege to any very great extent in stating, in all deference to those who have chosen these books for our use, my own serious opinion, an opinion which I believe is shared in common with many teachers throughout the country and throughout the province, namely, that our present text-books in these subjects, far from being an improvement upon the old, are indeed inferior to them.

I am conscious that my suggestions regarding the place of reason and memory in the teaching of mathematics and of history and geography may not be entirely orthodox, may not meet with universal approval. But I believe that very few will be inclined to dissent when I say that in the domain of Literature our schools are sadly deficient in memory work.

The old Greeks and Romans were accustomed to memorize practically all of their poetry. John Bright, the great English orator and statesman, could recite with ease Byron's "Childe Harold;" Macaulay knew by heart the greater part of English and indeed a great deal of classical poetry. Ruskin, the greatest master of English, has said that his command of the language was due to having had to learn, when a boy, long passages of the Bible and of poetry. Scores of others might also be mentioned. However, I readily realize that what was a necessity with the Greeks and Romans, when writing was so little in use, what was a possibility in the last century in England, when the natural sciences were almost unheard of, and mathematics were as yet in their infancy, is scarcely possible with us in this day, when our energies are divided among so

wide and varied a range of subjects. But surely much more could be accomplished in this direction than is being accomplished.

Our literature abounds with poetry expressed with grace and charm of language, resplendent with exquisite beauty, glowing with lofty sentiment, or thundering forth in tones of stirring and powerful inspiration. And it is a fact, I believe, and a most regrettable one, that our pupils are woefully ignorant of these elevating and inspiring poems. They may have a dim and hazy knowledge of them, but they have not that accurate knowledge and personal appreciation of their beauty which is only derived from closest study or memorizing.

I have laid emphasis heretofore upon the practical element in teaching, but I do not wish to underestimate another purpose to be sought, namely, the ethical and moral training. And surely it is to the study of literature that we may look for the greatest aid in this development. Poetry provides us a means of learning and retaining much of the best and noblest thought which has ever been expressed. We cannot, at least so easily, memorize prose. There is in the very nature of poetry, in its rythmical flow, something which materially assists us in remembering.

Who of us does not feel better and stronger in being familiar with, in being able to recite, if you will, many of our best poems? We may read Southey's "Life of Nelson," with all its beautiful description; we may know thoroughly the history of Nelson's life; but these will never give us the thrill of pride and inspiration that we receive from those two short poems of Thomas Campbell, "Ye Mariners of England," and "The Battle of the Baltic." We may read the history of the rural life of England, but what can equal Gray's "Elegy" in its accuracy of description of this very life? And it would be difficult perhaps to estimate the ethical and moral value of this poem, aside from its purely literary merit. Can any history or story so vividly portray for us the peaceful lives and unhappy wanderings of those unfortunate people, the exiled Acadians, as Longfellow's "Evangeline?" And how many others we might add to these!

We occasionally hear the statement, that we have no Canadian literature. Fortunately this is, I believe, only partly true. We are developing a literature of prose. We have some writers of worldwide fame, such as Roberts, Sir Gilbert Parker and Ralph Connor. But as regards poetry, the criticism is possibly a just one. It is probably true that

poets are born, and not made; and it may also be true that the age of poetry is passing away. But may it not also be that a greater study and a more thorough knowledge of existing poetry would be an inspiration to succeeding generations to emulate the past? Is it not worth while making the effort?

There is just one other phase of school life to which I would invite your attention—a phase in which, I believe, lies one of our greatest weaknesses. It is summed up in the one word—"Work." If the school of the old days had one special merit, it was this,—that it was a serious place, it was a place for work. The birch rod and the leather thong of the schoolmaster may not have been the embodiment of the best educational methods, but they at least succeeded in turning out men who would work. To-day our schools are lacking in this spirit of earnestness. From the earliest days everything is made so easy and plain for the pupil, all the difficulties are so clearly explained, that he has come to consider school simply as a place where he may remain more or less passively still, and be filled, at least filled sufficiently to enable him to pass certain examinations, and receive at the end of his career a high school or other certificate.

I do not so much mean that more work should be done, though that, I believe, is very possible, as that more serious work should be done, and by the pupils. Teachers do too much; the pupils too little. The latter should be made to realize that there is a certain amount of hard grinding, and they should be expected to do this. It is not always necessary or important that they know why; it is sufficient that they do it. It will be a splendid training in diligent application such as will be of inestimable value to them in after life. They are not too young to begin. I believe we often err in making much of our work too easy, and not demanding enough work, simply for the pure work's sake. How much greater is our appreciation of that which we have obtained by hard, consistent plodding? Memory work in literature is applicable here. It does not matter that the pupil may not understand all that he is asked to memorize. He will retain it, and later he will understand, when he will not have the time or opportunity for learning. There are marked differences of opinion as to the amount of work to be required from the pupils. I am of the opinion that our demands are too small, rather than too great. Above all, let us impress upon the pupil the idea that school is a place not for play, but for work; let us begin the training which will fit

him to become an active and useful citizen. Milton has defined education: I call that a complete and generous education that which fits a man to perform skilfully, justly and magnanimously all the offices, both public and private, of peace and war. This has been generally accepted as a sound and comprehensive definition. To meet the requirements which it suggests, good, hard, earnest work is necessitated.

It is quite possible, indeed very probable, that some of the ideas which I have expressed are not altogether in harmony with accepted pedagogical principles. But I am little concerned as to that. My purpose has been to bring before the Institute some ideas which may be suggestive of thought and discussion, and thus lead, in some degree at least, towards that purpose for which we are assembled here—the improvement of our present methods of teaching.

Yussouf.

A stranger came one night to Yussouf's tent,
Saying, "Behold one outcast and in dread,
Against whose life the bow of power is bent,
Who flies, and hath not where to lay his head;
I come to thee for shelter and for food,
To Yussouf, called through all our tribes 'The Good'."

"This tent is mine," said Yussouf, "but no more
Than it is God's; come in, and be at peace;
Freely shalt thou partake of all my store
As I of His who buildeth over these
Our tents His glorious roof of night and day,
And at Whose door none ever yet heard Nay."

So Yussouf entertained his guest that night,
And, waking him ere day, said: "Here is gold;
My swiftest horse is saddled for thy flight;
Depart before the prying day grows bold."
As one lamp lights another, nor grows less,
So nobleness enkindleth nobleness.

That inward light the stranger's face made grand,
Which shines from all self-conquest; kneeling low,
He bowed his forehead upon Yussouf's hand,
Sobbing: "O Sheik, I cannot leave thee so;
I will repay thee; all this thou has done
Unto that Ibrahim who slew thy son!"

"Take thrice the gold," said Yussouf, "for with thee
Into the desert, never to return,
My one black thought shall ride away from me;
First-born, for whom by day and night I yearn,
Balanced and just are all of God's decrees;
Thou art avenged, my first-born, sleep in peace!"

—James Russell Lowell.

I find the REVIEW very helpful. I could not do
without it now.

NELLIE B. CROAN.

Durham, N. B.

Suggestions for Christmas Exercises.

Appoint a committee, with the teacher as chairman, to decorate the schoolroom. Let everyone do something to help, however little. Borrow pictures for the day. Have a Christmas tree. The hints in this and previous numbers of the REVIEW may be helpful in furnishing it; and also in providing readings and recitations for a public entertainment, to which the parents and friends of the children should be invited.

An exceedingly pretty custom in some primary rooms is to direct the children in the making of tiny Christmas baskets, which they place about the room on shelves and window-sills, to see if Santa Claus will fill them in the night.

When the baskets have all been made and placed, two or three children who most need the lesson are kept, and asked if they would like to be Santa Claus. A small package is produced. One child puts a raisin in each basket, and another a candy. These baskets are in sight, but above reach, and their examination makes part of the last day celebration.

In all work and exercises during the month, keep the significance of Christmas before the children. It brings before us the life of Christ; teaching us self-sacrifice and unselfishness; going about continually doing good. Let each resolve to do at least one kind act, and to speak at least one kind word to some one, every day, and to keep it up during the next. How such speaking and doing would change the world in a little time!

Empty Stockings.

Oh, mothers in homes that are happy
Where Christmas comes laden with cheer,
Where the children are dreaming already
Of the merriest day in the year,

As you gather your darlings around you
And tell them the "story of old,"
Remember the homes that are dreary!
Remember the hearts that are cold!

And thanking the love that has dowered you
With all that is dearest and best,
Give freely, that from your abundance
Some bare little life may be blessed!

Oh, go where the stockings hang empty,
Where Christmas is naught but a name,
And give—for the love of the Christ-child!
'Twas to seek such as these that He came.

—*Ladies' Home Journal.*

The Christmas Spirit.

An elderly man was on the stage at the Five Points Mission one Christmas day. He addressed the audience thus: "Forty years ago I came in here on a Christmas Eve. I was ignorant, I was wicked, idle, and was wandering about. The room was full of just such fellows. Mr. Pease asked us what good we had done, saying that those who worked did good; and pretty soon he took us into another room, and we had quite a feast. After that he said he had shown us the way and we must do the same for our fathers and mothers and all who needed it.

"I went away and came back the next Sunday, as he asked, and he recognized me. 'What good have you done, John?' he asked. I said I had got some work and that the boss had praised me. He replied, 'If you keep right on you are a saved man; Christmas has got into your boots sure enough.'

"I kept on, right on. I went to evening school in Marion street; I dropped my old bum acquaintances and learned the engineering business and am now an engineer on an Atlantic steamer. I have come here to tell you to have the Christmas spirit; try to help some one to get the Christmas spirit."

There is power in the Christmas spirit. Its influence may make a new life dawn in the heart.

A Christmas Scene.

In our efforts to cultivate a spirit of unselfishness and of willingness to give and make others happy, we must be careful not to overdo and make the Christmas story seem prosy to the child. If so, we are apt to destroy the spirit that we aim to cultivate. We must not ignore what has been, perhaps, his whole pleasure and thought heretofore, that is, the Christmas tree and Santa Claus. Last year while we were studying the story of Christmas, we made a Christmas scene in the sand table.

We got some evergreen branches and arranged them to form a tree. We fastened this tree securely in one corner of the sand table. The pupils made pink and white paper chains, to decorate the tree with. This was to be a play Christmas tree, so we cut apples, oranges, stockings, stars, etc., from colored papers and hung these on a tree. In our construction work, we had learned to make boxes, baskets, and sleds, so we made these for presents also.

When the tree was completed some one suggested that we have a Santa Claus. I drew an outline of Santa on heavy paper. One of the pupils cut this out and with the assistance of several others, Santa was appropriately dressed. His clothes were made of colored paper and pasted onto the form. Then a standard was pasted at his back so that he could stand by the tree. Now we wanted a ladder. The making of this ladder furnished busy work for two pupils during a recitation. The ladder was one foot long and the steps were two inches apart. We made it of blue blotting paper, and we placed it so that it leaned against the tree.

Now we needed a reindeer and a sled. We made a large sled similar to the small sleds that we made and filled it with presents, such as dolls, horns, balls, etc., which the pupils cut from paper. For some time we couldn't get any reindeer, but the pupils were on the lookout and finally two

were found and answered the purpose very well. They cut these pictures of the reindeer from covers of two December magazines, then pasted them on heavy paper. They then cut them from the heavy paper, and pasted a standard to the back of each. They placed the reindeer in line, in front of the sled, and hitched them to the sled with red paper harness. This completed the scene in the sand table.

The making of this scene furnished material for a great deal of busy work and a great deal of pleasure. Of course this was a real play tree; we did not give the presents to any one, but we played that we were making them for some one. Whenever a child made anything for the tree he had the privilege of telling us for whom he made the present. Sometimes the present was made for some one of the family. Again, something was made for some character in a story. Several presents were made for the "Little Match Girl." One little pupil always made her presents for a little colored girl who had lost her mamma.

In addition to this work, each child made two real presents to give away, but I think the play tree was a help in cultivating the real Christmas spirit.—*Primary Education.*

'Tis Christmas Day.

'Tis Christmas Day and we are far from home,
But not so far as He, the Child, who came
That winter night down from the starry dome
To give us life who call upon His name.

'Tis Christmas Day—the East repeats the word
And then forgets the meaning of His birth,
Forgets the carols that the shepherds heard—
How Heaven itself proclaimed Him to the earth.

'Tis Christmas Day, and those afar we love
Send messages of peace on earth and cheer,
But He who brought these with Him from above—
Our guest from Heaven—found cheerless welcome here.

'Tis Christmas Day, the welcome long delayed
Is ours to give once more: Come, little Child,
And dwell within our hearts, for they were made
To be Thy home all sweet and undefiled!

—*Chautauquan for December.*

The First Christmas Tree.

Once upon a time the Forest was in a great stir, for the wise old Cedars had told of strange things to be. They had lived in the Forest many, many years; but never had they seen such marvelous sights as were to be seen now in the sky, and upon the hills, and in the distant village.

"Pray tell us what you see," asked a little Vine.

"The whole sky seems to be aflame," said one of the Cedars, "and the Stars appear to be dancing among the clouds; angels walk down from heaven to the earth and talk with the shepherds upon the hills."

"How I should like to see the angels and the Stars!" sighed a little Tree near the Vine. "It must be very beautiful. Oh, listen to the music!"

"The angels are singing," said the Cedar.

"And the Stars are singing, too," said another Cedar, "and the shepherds on the hill join in the song."

The Trees listened to the singing, a strange song about a Child that had been born.

And in the early morning the angels came to the Forest singing the same song. They were clad in white; and love, hope, and charity beamed upon their faces, and their song was about the Child, the Child, the Child that had been born. And when they left the Forest one angel remained to guard the little Tree. No danger, no harm, came to it, for night and day the angel watched the little Tree and kept it from evil. So the years passed, and the little Tree became the pride and glory of the Forest.

One day the Tree heard some one coming from the Forest.

"Have no fear," said the angel, "for He who comes is the Master."

And the Master came and stooped and kissed the Tree, and many times He came and touched its branches and went away. And the Tree loved the Master for His beauty and His goodness.

But one night alone into the Forest came the Master, and He fell upon His knees and prayed. In the morning there was a sound of rude voices and the flashing of swords, and strange men with axes cut the Tree down. And the Trees of the Forest wept.

But the Night Wind that swept down from the City of the Great King that night stayed in the Forest a while to say that it had seen that day a cross raised on Calvary—the Tree on which was laid the body of the dying Master.—*Eugene Field.*

The Christmas Tree.

The Christmas tree is of German origin. As early as 1632, the little German children enjoyed the Christmas tree. The usual German Christmas tree is decorated with tiny colored candles representing stars, while in the very top nestles the figure of an angel, typical of the holy Christ-child.

The German parents will make many sacrifices that their little ones may enjoy a Christmas tree.

The raising of evergreens for Christmas trees has become an active industry in Germany, and for weeks before Christmas the shops are bowers of greenery.

This German custom has reached far across the sea, and now no Canadian boy or girl thinks Christmas complete without the beautiful Christmas tree.

Winter Pictures.

Down swept the chill wind from the mountain peak,
From the snow five thousand summers old;

On open wold and hill-top bleak
It had gathered all the cold,

And whirled it like sleet on the wanderer's cheek;
It carried a shiver everywhere

From the unleafed bough and pastures bare;
The little brook heard it and built a roof

'Neath which he could house him, winter-proof;
All night by the white stars' frosty gleams

He groined his arches and matched his beams;
Slender and clear were his crystal spars

As the lashes of light that trim the stars:
He sculptured every summer delight

In his halls and chambers out of sight;
Sometimes his tinkling waters slipt

Down through a frost-leaved forest-crypt,

Long, sparkling aisles of steel-stemmed trees
 Bending to counterfeit a breeze;
 Sometimes the roof no fretwork knew
 But silvery mosses that downward grew;
 Sometimes it was carved in sharp relief
 With quaint arabesques of ice-fern leaf;
 Sometimes it was simply smooth and clear
 For the gladness of heaven to shine through, and here
 He had caught the nodding bulrush-tops
 And hung them thickly with diamond drops,
 Which crystallized the beams of moon and sun,
 And made a star of every one.

Within the hall are song and laughter,
 The cheeks of Christmas grow red and jolly,
 And sprouting is every corbel and rafter
 With the lightsome green of ivy and holly;
 Through the deep gulf of the chimney wide
 Wallows the Yule-log's roaring tide;
 The broad flame-pennons droop and flap
 And belly and tug as a flag in the wind;
 Like a locust shrills the imprisoned sap,
 Hunted to death in its galleries blind;
 And swift little troops of silent sparks,
 Now pausing, now scattering away as in fear,
 Go threading the soot-forest's tangled darks
 Like herds of startled deer.

—James Russell Lowell—*The Vision of Sir Launfal.*

Busy Work for December Days.

Try, for the morning exercise, reading one of the fascinating stories of the Bible and then have the school repeat some favorite Psalm or a chapter from Proverbs.

For quick work see how many words can be written in a minute, about Winter Plays, Snow Storms, a Sleigh-ride, Trees in Winter, etc.

See who can write the longest list of authors in two minutes.

Let the school learn such pieces as "Lines for the Christmas Season," "Winter Pictures," and others in this month's REVIEW. Very few children are so young they cannot see the beauty of good poetry.

A Christmas Enigma.

I am composed of thirty-one letters. The answer to each question is given in the letters represented by numbers, which follow it.

1. What is the chilly season when right merry you hope to be? 27-10-17-12-29-5.

2. And when the Christmas eve is here, what do you long to see? 7-20-31-10-15-12-2-19-11-12-31-3-26.

3. How do you feel when your tasks are o'er and the holiday time is here? 8-16-23-22-28.

4. And what is the lovely emblem of this season of joy and cheer? 11-12-30-4.

5. What do you hope in your stocking to find in a beautiful, bountiful horn? 7-21-25-18-24.

6. How do you feel, when with shouts of glee, you welcome the Christmas morn? 13-29-9-4-24.

7. And what is the day when your friends you meet, with wishes loving and kind?—17-3-27-6-29-14-9-15-18-1-28.

Now put these letters together, and there our greeting sincere you'll find.

Lines for the Christmas Season.

'Tis the time of year for the open hand
 And the tender heart and true,
 When a rift of heaven has cleft the skies,
 And the saints are looking through.
 —Margaret Sangster.

For they who think of others most,
 Are the happiest folks that live.
 —Pheobe Cary.

Ring and swing
 Bells of joy! On morning's wing
 Send the song of praise abroad!
 With a sound of broken chains
 Tell the nations that He reigns,
 Who alone is Lord and God!
 —Whittier.

The journeyers to Bethlehem,
 Who followed trusting from afar
 The guidance of that happy star
 Which marked the spot where Christ was born
 Long years ago one Christmas morn!
 —Frank Dempster Sherman.

Still in memory undying,
 Stands afar the lowly shed,
 Where a little child is lying
 In His manger-bed.
 Still the promise of love's dawning
 Deepens into perfect day;
 For the joy of Christmas morning
 Shall not pass away.
 —Selected.

As we meet and touch, each day,
 The many travellers on our way,
 Let every such brief contact be
 A glorious helpful ministry—
 The contact of the soil and seed,
 Each gives to the other's need,
 Each helping on the other's best,
 And blessing each as well as blest.
 —Susan Coolidge.

"Three good cheers for old December!"
 Month of Christmas trees and toys,
 Hanging up a million stockings,
 For a million girls and boys.
 O, dear December, hurry on;
 Oh, please—oh, please, come quick;
 Bring snow so white,
 Bring fires so bright,
 And bring us good Saint Nick."
 —Selected.

Oh! who can tell the brightest month,
 The dearest and the best?
 We really think December is
 The crown of all the rest.
 For that's the happy month that brings
 The Christmas joy and mirth,
 And tells us of the little Child
 Who came from heaven to earth.
 —Selected.

Love is the secret sympathy,
The silver link, the silken tie,
Which heart to heart, and mind to mind,
In body and in soul can bind.

—Scott—*Lay of the Last Minstrel.*

Sing, Christmas bells!
Say to the earth this is the morn
Whereon our Saviour-King is born;
Sing to all men,—the bond and free,
The rich, the poor, the high, the low,
The little child that sports in glee,—
The aged folks that tottering go,—
Proclaim the morn
That Christ is born,
That saveth them and saveth me.

—Eugene Field.

The Christmas Baby.

"Tha'rt welcome, little bonny bird,
But shouldn't ha' come just when tha' did:
Teimes are bad,"

—English Ballad.

Hoot! ye little rascal! ye come it on me this way,
Crowdin' yerself amongst us this blusterin' winter's day,
Knowin' that we already have three of ye, an' seven,
An' tryin' to make yerself out a Christmas present o'
Heaven?

Ten of ye have we now, Sir, for this world to abuse;
An' Bobbie he have no waistcoat, an' Nellie she have no
shoes,
An' Sammie he have no shirt, Sir (I tell it to his shame),
An' the one that was just before ye we ain't had time to
name!

An' all o' the banks be smashin', an' on us poor folk fall;
An' Boss he whittles the wages when work's to be had at
all;

An' Tom he have cut his foot off, an' lies in a woeful
plight,

An' all of us wonders at mornin' as what we shall eat at
night;

An' but for your father an' Sandy a findin' somewhat to
do,

An' but for the preacher's woman, who often helps us
through,

An' but for your poor dear mother a-doin' twice her part,
Ye'd 'a seen us all in heaven afore ye was ready to start!

An' now ye have come, ye rascal! so healthy an' fat an'
sound,

A-weighin', I'll wager a dollar, the full of a dozen pound!
With yer mother's eyes a flashin', yer father's flesh an'
build,

An' a good big mouth an' stomach all ready to be filled!
No, no! don't cry, my baby! hush up, my pretty one!

Don't get any chaff in yer eye, boy—I only was just in fun,
Ye'll like us when you know us, although we'er cur'us
folks;

But we don't get much victual, an' half our livin' is jokes!
Why, boy, did ye take me in earnest? come, sit upon my
knee;

I'll tell ye a secret, youngster, I'll name ye after me.
Ye shall have all yer brothers an' sisters with ye to play,
An' ye shall have yer carriage, an' ride out every day!

Why, boy, do you think ye'll suffer? I'm gettin' a trifle old.
But it'll be many years yet before I lose my hold;
An' if I should fall on the road, boy, still, them's yer
brothers, there,

An' not a rogue of 'em ever would see ye harmed a hair!
Say! when ye come from heaven, my little namesake dear,
Did ye see, 'mongst the little girls there, a face like this one
here?

That was yer little sister—she died a year ago,
An' all of us cried like babies when they laid her under the
snow.

Hang it! if all the rich men I ever see or knew
Came here with all their traps, boy, an' offered 'em for you,
I'd show 'em to the door, Sir, so quick they'd think it odd
Before I'd sell to another my Christmas gift from God!

—Will Carleton—*Farm Legends.*

Hilda's Christmas.

Standing apart from the childish throng,
Little Hilda was silent and sad;
She could not join in the happy song,
She could not echo the voices glad.

"What can I do on Christmas day?
I am so little and we are so poor;"
She said to herself in a dreary way;
"I wish there was never a Christmas more.

"Mother is sick and father can't know
How children talk of their gifts and joy,
Or he'd surely try, he loves me so,
To get me just one single toy."

"But Christmas isn't for what you get,"
She heard a small, sweet, tender voice,—
"It's for what you give," said wee Janet,
And the words made Hilda's heart rejoice.

"It isn't our birthday," went on the mite,
"It is Christ's, you know; and I think he'd say
If he were to talk with us to-night
That he'd wish us to keep it his own way."

A plan came into Hilda's head;
It seemed to her she could hardly wait.
"I can't give nice things," she bravely said,
"But I'll do what I can to celebrate."

"I can give the baby a day of fun;
I can take my plant to the poor, lame boy;
I can do mother's errands—every one;
And my old kite I can mend for Roy.

"I can read to father and save his eyes;
I can feed the birds in the locust grove;
I can give the squirrels a fine surprise;
And Grandma shall have a letter of love."

Now when that busy day was done,
And tired Hilda crept to bed,
She forgot that she had no gift of her own,—
"What a lovely Christmas it was!" she said.

—M. A. L. Lane.

The Great Guest Comes.

"While the cobbler mused there passed his pane
A beggar drenched by the driving rain,
He called him in from the stony street
And gave him shoes for his bruised feet.

The beggar went and there came a crone
 Her face with wrinkles of sorrow sown.
 A bundle of faggots bowed her back,
 And she was spent with the wrench and rack.
 He gave her his loaf and steadied her load
 As she took her way on the weary road.
 Then to his door came a little child,
 Lost and afraid in the world so wild,
 In the big, dark world. Catching it up,
 He gave it the milk in the waiting cup,
 And led it home to its mother's arms,
 Out of the reach of the world's alarms.

"The day went down in the crimson west
 And with it the hope of the blessed Guest.
 And Conrad sighed as the world turned gray:
 'Why is it, Lord, that Your feet delay,
 Did You forget that this was the day?'
 Then soft, in the silence a Voice he heard:
 'Lift up your heart, for I kept my word.
 Three times I came to your friendly door;
 Three times my shadow was on your floor.
 I was the beggar with bruised feet;
 I was the woman you gave to eat;
 I was the child on the homeless street,"

—From a poem by Edwin Markham, in the December
Delineator.

The Months.

January brings the snow,
 Makes our feet and fingers glow.
 February brings the rain,
 Thaws the frozen lakes again.
 March brings breezes sharp and chill,
 Shakes the dancing daffodil.
 April brings the primrose sweet,
 Scatters daisies at our feet.
 May brings flocks of pretty lambs,
 Sporting round their fleecy dams
 June brings tulips, lilies, roses,
 Fills the children's hands with posies.
 Hot July brings thunder showers,
 Apricots, and gilly-flowers.
 August brings the sheaves of corn;
 Then the harvest home is borne.
 Warm September brings the fruit;
 Sportsmen then begin to shoot.
 Brown October brings the pheasant,
 Then to gather nuts is pleasant.
 Dull November brings the blast—
 Hark! the leaves are whirling fast.
 Cold December brings the sleet
 Blazing fire and Christmas treat.

—Sara Coleridge.

He—"Why do we do the meanest and most
 hateful things to those we love the best?"

She—"I presume it is because no one else would
 stand it."—*Lippincott's*.

A Clock Song.

Tick, tock! ten o'clock!
 Little New Year
 Is almost here.
 Tick, tock! tick, tock!
 Tick, tock! eleven o'clock!
 While you sleep
 In he'll peep.
 Tick, tock! tick, tock!
 Tick, tock! twelve o'clock!
 Happy New Year
 To you, my dear!
 Tick, tock! tick, tock!

—*Youth's Companion*.

For the Little Folks.

FILL IN THE BLANKS.

My hunter is a graceful —,
 With ears alert at every —,
 And eyes that keenly glance —,
 And feet that scarcely touch the —,
 O'er lofty mount and lowly —,
 And field, he runs with fleetest —,
 Wherever bird or hare is —,
 His worth, untold by pence or —,
 If lost to me how deep the —,

(The nine words left out all rhyme.)

An ill-natured teacher who was in a perfunctory way conducting a development lesson was seeking to lead the class up to the word "breathing." "What did I do the moment I came into the world," she asked. "What have I kept doing ever since? What can I not stop doing without ceasing to be myself?"

The class was listless, and nobody tried to answer for a while. Finally one surly-looking boy raised his hand.

"What is it?" asked the teacher.

"Finding fault," was the reply, and all the class showed signs of animation.—*School Bulletin*.

Always talk over a pupil's misconduct alone with him. One good private talk with a pupil is worth twenty reprimands in the presence of the school. It is worth everything to get the pupil's point of view, to let him state his side of the case fully and freely. Listen to all he has to say, and tell him frankly and kindly where he is in the wrong. He will trust you after such a talk as he never will if you "jump on him" before the school for every misdemeanor. Half our disciplinary troubles comes from the outraged feeling of misguided pupils that they never had a chance to tell their side of the story.—*Western School News*.

Recreations and Suggestions.

MYSTERIOUS CITIES.

1. A city used on a handkerchief. 2. Ferocious beasts. 3. To wander. 4. A place of worship. 5. Fine leather. 6. A pebble. 7. Result of contact with fire. 8. Part of a fowl. 9. A term used in speaking of young men. 10. A part of a human body and a small body of water. 11. A cooking utensil and a great weight. 12. An extremity of the human body and a musical instrument. 13. Ground meats. 14. Part of a hog and a fortified town. 15. A portion of a week and a unit of measure. 16. Air in motion and a conjunction. 17. Christ's beloved disciple. 18. A stream of water and a species of tree. 19. Thorough cleansing of the body. 20. A weekly duty and 2,000 pounds. 21. A great German statesman. 22. A martyr president. 23. The Lord's Supper and an exclamation. 24. A welcome visitor and the price of admission.

Answers next month.

It is never wise to ask children at school for contributions of money or other gifts for any purposes whatever. There is no danger in being too careful in avoiding anything that may expose children to humiliation among class-mates. Children are by nature cruel. The girl who is able to contribute twenty-five cents is as likely as not to impress that fact upon those who have given less, or nothing. Let us try to keep alive by every means in our power the feeling of fellowship among the young. Differences of station and material advantages will be brought home to them altogether too soon after the doors of the school are closed behind them.—*Teachers' Magazine.*

In the work of teaching, as in every other work, the only successful workers are those who are conscious of their shortcomings. What can be expected from teachers who are not only not conscious of their shortcomings, but conceited as to their ability—full of the opinion that they've reached the summit. We find such teachers everywhere, and will continue to find them everywhere, until we act fairly and wisely enough to grant just compensation for teaching. Higher salaries will bring to the schools those who know enough to know that they know but little, and those with this splendid knowledge should supplant those who know so little that they think they "know it all."—*Public School Journal.*

Points for the Teacher.

Talk but little.

The recitation is an opportunity for the child to talk.

Speak kindly to an angry pupil.

See nothing, yet see everything.

Let the rule, "Do right," be your only rule.

Know your lesson so thoroughly that a text-book is unnecessary in the recitation.

Some pupils expect you to scold them. By all means disappoint them.

Sarcasm is a dangerous weapon. Use it not.

Have something interesting to tell your pupils every day. They will enjoy it.

Be slow to anger and plenteous in mercy.

Be cheerful. Let a smile speak the joy, peace and contentment that fills your heart.

The schoolroom is a home. Be sure that its mission is not a failure.

Expect good lessons, good behaviour, cheerful obedience, prompt and accurate work.

It takes pluck to be wise and courageous.

Every child needs the teacher's individual care and attention.

Know each child's home life. It will open the way to his heart.—*School Education.*

Encourage children to make, with their own hands, the gifts which they offer to their friends. They should be the outcome of personal exertion, not merely something given to them to be given away again, which has cost them nothing in pains or labor. If they cannot give their own handiwork, they should, at least, be required to earn the money which they spend in presents. It gives them some idea of the value of money, and teaches them in a degree how difficult it is to get and how fatally easy to spend.

It has seemed to me that the jugglery of figures is often thrust upon the little ones before they have much real idea of number. At first they need to express their views about things in good, plain English. No time need be wasted upon zero, or one; not much on two. All that there is can soon be compassed; three and four present few difficulties. The pupils should be encouraged to talk, and talk freely, not in any set phrase, and have their mistakes pleasantly corrected.—*George Howland.*

The Northumberland County Teachers' Institute.

The thirtieth annual meeting of the Northumberland County Teachers' Institute was held in the grammar school, Chatham, October 25th and 26th. There were present about eighty teachers, representing the various districts of the county, and a good degree of interest was manifested throughout the proceedings.

On Thursday, after the opening business, the President, B. P. Steeves, gave a carefully prepared paper upon Spelling Reform, of which the Institute showed its appreciation by unanimously passing a resolution favouring the use of the simple and more phonetic forms of words. Following this was a paper by W. T. Denham, B. A., upon Composition in Grades VII and VIII. On Friday morning the Institute listened to instructive papers by Miss Laura A. Mills on Patriotism, and Dr. Cox on The Progressive Teacher. In the afternoon W. J. Young gave an illustrated lesson to pupils from Grade VIII on Trade Winds.

The following are the officers for the ensuing year: President, Jas. McIntosh; Vice-president, Miss Kathlene I. B. McLean; Secretary-treasurer, W. J. Young. Additional members of executive, Miss Muriel Ellis, W. T. Denham.

W. T. DENHAM, *Secretary.*

"Bachelors can be found roaming at large in all parts of the world. They inhabit apartments, clubs, open fields, bodies of water and music halls. They are also seen behind the scenes. They hover at times near front gates, and have been found in back parlors with the aid of a searchlight. Bachelors are nomadic by nature and variable in their tastes, never going with one girl long enough to be dangerous. Bachelors make love easily, but rarely keep it. Rich bachelors are hunted openly and shamelessly, and are always in great danger. Those who finally escape are, as a rule, useless ever afterwards."—*Tom Masson, in the December Delineator.*

A theological student was sent one Sunday to supply a vacant pulpit in a Connecticut valley town. A few days after he received a copy of the weekly paper of that place with the following item marked: "Rev. ———, of the senior class at Yale Seminary, supplied the pulpit of the Congregational church last Sunday, and the church will now be closed three weeks for repairs."—*Cleveland Leader.*

The Italian government has approved of plans for the excavation of Herculaneum.

Fifteen thousand New Brunswick trees will be destroyed this year by one man, who will ship them to New York to be sold for Christmas trees.

CURRENT EVENTS.

The passengers and mails for the Orient which left London on Friday afternoon, November 16, reached Vancouver Tuesday morning, Nov. 27, in less than eleven days by the C. P. R. steamship "Empress of Ireland," and by train from St. John to Vancouver Truly the world moves.

With the opening of traffic on the Tehuantepec National Railway across Mexico in January, the trade route between the West Indies and British Columbia will be shortened by two thousand miles. The railway itself has been completed for some time. Terminal facilities have now been provided on both coasts; and the line will be double tracked immediately.

The French government is building a telegraph across the Desert of Sahara. French explorers have found that the great desert is not such a terrible place as it was represented to be; and that much of it can be reclaimed by means of artesian wells at comparatively little cost.

The new C. P. R. steamship "Empress of Ireland" arrived at Halifax on the 22nd November and delivered the English mails on board a tender. These were at once conveyed to Montreal by a special train, making the run to that city in the unprecedented time of nineteen hours and fifteen minutes. The "Empress," without docking at Halifax, proceeded at once to St. John with passengers for the Orient and China mails, and twenty-four hours later these were on the special train for Montreal on the way to the west. This is the first time that St. John has been tested as a mail port with mails for the Far East.

The despatch of French and Spanish warships to Tangier seems to indicate new dangers in the Moroccan situation.

Captain Bernier, of the steamer "Arctic," has taken possession of several islands in Baffin's Bay, and raised the Union Jack. The steamer is wintering in Baffin's Bay, and next year will push as far north as possible along the west coast of Greenland.

The nineteenth day of this month is the three hundredth anniversary of the departure of the first English colonists for Virginia.

In addition to what has already been done in behalf of the peasants, the Russian government proposes to submit to the new parliament, when it assembles in February, a law limiting the hours of labor in factories, and restricting the employment of women and children; a law establishing compulsory insurance of workmen against disease and accident, and providing for old age pensions; and a law for the sanitary inspection of factories and workmen's dwellings.

The Emperor of Russia has issued a remarkable decree, which makes all persons equal before the law, abolishes the poll tax, and releases the peasants for the communal system, so that they will be allowed to dwell where they

please. Heretofore the peasants, who form a very large proportion of the inhabitants of Russia, were not free to go from district to district in search of employment; but each was obliged to remain in his own community, unless he went to foreign parts or engaged in some other pursuit than that of agriculture. There was a sort of alien labour law for each community. Now the protection or restriction is removed, and an agricultural labourer can go wherever his labour is in most demand.

An edict has been issued in China forbidding the cultivation of the poppy and the importation and use of opium after a period of ten years. Imperial sanction has also been given to the plans for introducing a system of constitutional government in China. Each of the eighteen provinces into which the empire is at present divided is to have a constitution and a legislative assembly of its own.

The forecast of political events in Cuba is not reassuring. A new fight for Cuban independence is threatened, should the United States take permanent possession. On the other hand, there is a conspiracy to bring about an uprising whenever the United States forces are to be withdrawn, and so compel them to remain. The matter is largely one of class interest, the wealthy Cubans and foreigners who are interested in Cuban investments thinking that their property will be safer under United States protection, and the populace wishing to have the government of the country in their own hands, and hoping to improve their own condition at the expense of the large property holders and men of business. And so, it would seem, the natural resources of one of the richest countries in the world must still remain undeveloped for want of a settled government.

Japan's new battleship, the "Satsuma," is the largest battleship in the world. It excels the British ship "Dreadnought," both in speed and in power; and, as in the case of the latter, its construction has been very rapid.

Captain Amundsen, the Norwegian explorer who has sailed through the Northwest Passage, is now returning to his home in Norway, where a great reception is awaiting him. It will take two or three years to work up the results of his observations, which are believed to be of great scientific value.

The return of Commander Peary from his Arctic voyage was announced from Newfoundland on November 2nd. He had failed to reach the North Pole; but had gone a few miles farther north than any previous explorer.

The Keewatin conference at Ottawa has not resulted in an agreement for the partition of the territory among the adjacent provinces. The Province of Ontario asks that the eastern boundary of Manitoba be extended northward to Churchill River, and follow that stream to its mouth, where is situated the only good harbour on Hudson Bay; and that all the Keewatin territory east and south of that line

be added to Ontario. Saskatchewan asks that the territories of that province and of Manitoba be extended eastward to Hudson Bay, and that the Nelson River be made the boundary between them; thus giving to Saskatchewan the good harbour at Fort Churchill, and half the inferior harbour at York Factory. So each of these two provinces is willing to take a part of the District of Keewatin, and to give Manitoba the rest. But Manitoba claims the whole. A decision will be given later.

Armorial bearings have been assigned to the Province of Saskatchewan by royal warrant. They are described as follows: Vert, three garbs in fesse, or; on a chief of the last, a lion passant guardant, gules. This, being interpreted, means that the shield shall be green, with three golden sheaves of wheat in a line across it; and that the chief, or upper third of the shield, shall be of gold, with a red lion, like the chief in the arms of the Province of New Brunswick, but with the colours reversed.

The soldiers in the British army are being taught to sing, and regimental choral societies will be formed. The idea is taken from the German army.

The flow of the Colorado River into the Salton valley, in Southern California, has been stopped, by building a dam nine miles in length. This was a great engineering feat, and was supposed by many to be impossible. The river is now, however, flowing in its old channel, and the new Salton Sea will probably soon be a thing of the past.

The world's supply of platinum is so much less than the demand that the price has increased fourfold. It is now much more valuable than gold. The mines of Russia have heretofore been the chief source of supply; but the metal is found in several places in the Rocky Mountain region, and search is being made there for deposits that may be profitably mined.

Part of the city of Toronto is now lighted with electricity from Niagara.

Recent improvements in the wireless telephone seem to promise that it will ultimately be of more importance than the wireless telegraph. A French electrician has succeeded in sending a wireless telephone message from Toulon to Ajaccio, a distance of one hundred and eighty miles.

It is no longer a question whether an airship can fly without being lighter than the air. Recent experiments in France have been so successful that a flying machine for practical use is regarded as one of the possibilities of the near future. It is predicted that air ships will be faster, safer and cheaper than automobiles.

Commander Peary, of the steamer "Roosevelt," arrived at Sydney, Saturday, November 24, after sixteen months exploration and battling with the rigours of the Arctic regions. The Commander and his crew, after undergoing many dangers in his trip to and from the north, reached the highest point yet attained by explorers—87 degrees 6 minutes north latitude.

SCHOOL AND COLLEGE.

Rev. Dr. Thompson, who has been president of St. Francis Xavier College, of Antigonish, for the past eight years, has resigned to accept the pastorate of the parish of Glace Bay, Cape Breton. Rev. H. P. McPherson has been appointed president.

Mr. Ernest Robinson, late principal of Kings Co. Academy, Kentville, has been appointed to the position of vice-principal of Amherst Academy, in succession to Mr. N. D. McTavish, who has gone to Wolseley, Alberta.

Kings College, Windsor, N. S., has a freshman class of fifteen, with nearly thirty students in residence.

The St. Andrews, N. B., *Beacon* suggests that town as a good place for the permanent location of the Summer School of Science. Several places have been mentioned in recent years where the school might "settle," with advantage, such as Parrsboro, N. S., and Shediac, N. B. St. Andrews has many advantages to offer the school, except the important one of geographical position.

One of the neatest collections of school work displayed at the recent Exhibition held in St. John, and that which took a first prize, was from the Convent school at Bathurst Village, N. B. The collection was the work of children in grades IV, V, and VI. It consisted of written quotations from their readers, with pencil illustrations in drawing, drawings in pen and ink, water-color paintings of Canadian wild flowers, Canadian birds in water-color, with a short description in writing of the bird.

The Kentville, N. S., school board has made the principal of the Academy in that town a member of the board; and many of the teachers are also invited to be present at its meetings, and confer with the members on the condition of the schools,—a most excellent practice, and one which has been attended with good results in Kentville and other towns of Nova Scotia.

Mr. F. C. Squires, B. A., is principal of the new consolidated school at Florenceville, N. B.

Mr. H. P. Dole has succeeded R. C. Colwell, in the Moncton high school, as teacher of mathematics and botany. In the same schools, Miss E. A. Davis, takes the place of Mr. G. Fred McNally, who has gone to the West.

At the meeting in September last, of the Provincial Educational Association of Nova Scotia, Principals McKittrick and Lay were elected members of the Advisory Board, to assist the Council and Superintendent of Education. Recently the government made the five additional required appointments as follows: Prof. Howard Murray of Dalhousie University; Mr. A. G. MacDonald, Inspector of Schools, Antigonish; Principal Kempton, of Yarmouth; Mr. Hiram Donkin, C. E., Glace Bay, and Mr. William Cameron, B. A., Merigomish.

Miss Marshall Saunders, of Halifax, has won the \$300 prize offered by the American Humane Educational Society for the best essay on "What is the cause of, and the best plan for stopping, the increased growth of crime in our country." There were 57 competitors. This is the second time Miss Saunders has won a prize from that society, the first being \$200 for a humane story entitled "Beautiful Joe."

Mt. Allison University has received an additional bequest of \$100,000, from the estate of the late Jairus Hart, Halifax.

The address of Superintendent Dr. A. H. MacKay, at the opening of the N. S. Educational Association is printed in full in the *Nova Scotia Journal of Education* for October. The Journal also contains much that is valuable to teachers.

Hearty congratulations are extended to Miss Gladys Whidden, who was married to Mr. Ralph Jones in August last. This is Miss Whidden's second certificate in domestic service.—*Acadia Athendæum*.

RECENT BOOKS.

Wm. Briggs, Toronto, publishes a beautifully illustrated work, entitled *Studies of Plant Life in Canada*, by Mrs. Catherine Parr Trail, a new and revised edition with eight reproductions in natural colours, and twelve half-tone engravings, from drawings by Mrs. Agnes D. Chamberlain. The effect produced in glancing over the pages is one of pleased surprise, that so many of the beautiful wild flowers of Canada are grouped with such exquisite skill and taste, and that it is possible to publish such a book in Canada. The binding, letter-press, and illustrations are admirable. The familiar style used by the author in her descriptions of the plants she knew and loved so well heightens the interest in her book, which will find many loving and admiring readers throughout Canada. The great majority of the plants figured and described are found in the Atlantic provinces. The poetic description and reverent attitude of the author towards the flowers of the field and forest will do much to make the book popular, while the careful revision of Dr. James Fletcher, of Ottawa, ensures its accuracy. No more acceptable and beautiful Christmas present than this could be made to a young person interested in plant life.

If "Greek must go" its spirit may remain with us, and enrich modern life and thought. Messrs. Auden and Taylor of the Upper Canada College, Toronto, have shown us an admirable way in which Greek may be retained and still used as an instrument of culture, in this little book—*A Minimum of Greek*. When the writer remembers the toilsome and roundabout way in which he acquired his "little Greek," (which he cherishes, though, as an inestimable possession), he wishes that such a book might have seen the light earlier. In a compact and really interesting book of less than two hundred pages the authors have reproduced the essentials of the Greek language, at least sufficient for the busy general student and man of affairs, and given a well ordered plan to secure an elemental knowledge of a language so valuable, especially in science and art. Its explanation of derivatives which occupies the larger part of the book is mainly useful. No one should lay claim to a liberal education without as much knowledge of Greek, at least, as this valuable little book teaches. Morang & Co., Toronto, publishers. Price 75 cents.

The Macmillan Company, of Toronto, have published three books which form a valuable series to the student of English language: (1.) Emerson's *Outline History of the English Language* (75 cents), a clear and concise record of our language, and the changes it has undergone; (2.) Mitchell and Carpenter's *Exposition in Class-room Practice* (70 cents), a practical guide to clear writing,—the large space devoted to outlines of subjects and the unflinching interest of the material for this purpose being especially

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noteworthy; Carpenter's *English Grammar* (75 cents), contains the amount and kind of grammatical theory and practice most suitable for secondary school pupils. All of these books are neatly printed in large clear type, and are strongly bound. Buchanan and Stubenranch's *Country Reader*, number one (40 cents), offers much good material suitable for object lessons on domestic animals and farm life.

In Blackie's Story Book Readers (Messrs Blackie & Son, London): Ballantyne's "Coral Island;" Sir Walter Scott's "Claverhouse," from *Old Mortality*; G. A. Henty's "A Highland Chief," and Henty's "An Indian Raid." In red cloth covers, 4d. each.

In Blackie's Modern Language Series: *Voyage autour de ma Chambre*, (1s. 6d.) and *Vie de Polichinelle*, (1s.) in red cloth; suitable and easy reading for beginners, with notes, questions and vocabularies. *Le Chateau de Vie*, a fairy story (6d.), and *Le Baron de Fourcheoix*, (8d.) from Blackie's Little French Classic Series, provided with notes, vocabularies and exercises. *La Petite Charité*, a delightful little story for Christmas times (4d.), *Cendrillon* a fairy-scene in one act (4d.), *Grosswaterchen und Grossmutterchen*, a merry children's play in one act, (6d.)—Blackie & Son, London.

The *Teaching of Modern Languages*, three lectures by Cloudesley Breerton, M. A., is a comprehensive criticism on the methods used in teaching these and the so-called classical languages (15); Sir Joshua Reynold's *Discourses* (in part) on Art, a work of the first rank in literature,

(2s.); Bacon's *Essays* with introduction and notes; Scott's *Quentin Durward*, with introduction and notes (2s.)—Blackie & Son, London.

The British Empire, (2s. 6d.), a series of descriptive readings in geography on the various portions of the Empire, from original resources; those relating to Canada being of special interest to our teachers; *Old Testament History*, (3s.), a capital synopsis of parts of Old Testament History, especially useful to teachers who wish to present to fairly advanced students an introduction to biblical times; *Arithmetical Exercises* for junior forms, with easy oral exercises and problems. Messrs. Adam and Charles Black, London.

Philip's Model Atlas (1s.), with fifty maps and diagrams in colour, of great clearness and beauty; accompanied with an index. Messrs. Geo. Philip & Son, London.

Rafia Work with numerous illustrations (2s.), is a beautifully bound and illustrated book, showing the mysteries of weaving and painting material for hats, baskets, mats, etc.—a valuable addition to school occupations in American and English schools. George Philip & Son, London.

Willkommen in Deutschland, with beautiful print and illustrations, is designed for the student in his second or third year's course in German, with grammatical exercises, notes and vocabulary. Messrs. D. C. Heath & Co., Boston.

Messrs. Ginn & Company publish a very useful Field Laboratory and Library Manual (mailing price \$1.15). It contains seventy exercises adapted to the ability of students

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in the first and second years of high schools, normal schools, and academies, and is written in accord with the latest and best thought on the subject. Its aim is to direct pupils in their first attempts at scientific investigation and research.

From the same publishers we have a strongly written book on *The Moral Damage of War*, published for the International Union. (Price 75 cents.) It traces in successive chapters the moral damage of war to the child, to the soldier, to the politician, to the journalist, to the preacher, to the trader, and to the patriot. Wherever the work is read it will be a wholesome call to a better way of arbitration among Christian nations than the brutal way of war.

RECENT MAGAZINES.

The *Acadia Athenaeum* appeared in November with a new and choicely designed title-page. The *University Monthly* has been enlarged and improved. The November number contained excellent likenesses of Chancellor Jones and the late Chancellor Harrison.

The *Atlantic Monthly* celebrates its jubilee this month with contributions by the three ex-editors still living—W. D. Howells, T. B. Aldrich and Walter H. Page, with other articles apropos to the occasion. The New York *Evening Post* takes the initiative in offering jubilee congratulations. The *Post* pithily remarks that the motto of its jubilee number might well be "*qualis ab incepto*," for the *Atlantic* has, in the main, held consistently with its ancient ideal—refinement and strength. "It is," says the *Post*, "the ablest of our magazines, standing on a level above even the most attractive of the New York illustrated magazines whose aim is to flatter the taste of *l'homme moyen sensuel*. Taking all things into consideration, we are inclined to regard it as the best of the general magazines published in the English language to-day."

The two most important of recent contributions to the discussion of reformed spelling may be found in *The Living Age*. The issue for November 3, contains an article of criticism and suggestion apropos of *The President's English*, by William Archer, one of the best-known English writers upon literary questions; and the number for November 17, opens with an article on Modern English

Spelling, by Professor Walter W. Skeat, than whom there is no higher authority on the subject.

The December *Delineator* is a typical Christmas number. It will assist Christmas-makers with its hints for Christmas gifts and holiday entertainments, besides containing an abundance of seasonable literature calculated to fit in from now until New Year's Day. Christmas stories for adults are: *Evergreen Trees*, and *The Shoplifter at Satterthwaite's*; and those for children: *The Blue Kimono*, and *Betty Evolves a Christmas Idea*, by Elizabeth Preston Badger.

Business Notice.

We are sending out in this number reminders to many of our subscribers. Others will be sent in the January or February numbers if our patrons do not anticipate us by remitting in the meantime without waiting to be reminded. The REVIEW has been promptly sent during the year to its many hundred of subscribers. A prompt remittance now will be very acceptable.

Remember that the date on the mailing wrapper of your journal shows the time to which your subscription is paid.

Wanted.

Teachers in Nova Scotia, preparing candidates for the Provincial examinations in science next July, to read my articles that have appeared the last half-dozen years in the EDUCATIONAL REVIEW, or that may appear in future. The articles are suggested by experience gained in reading the answers of candidates, and I have endeavoured to help teachers and students in their work. Though there is, I believe, some improvement, I feel sure that better work could be done in the schools and better results obtained at examinations if more attention were paid to the hints I have given.

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OFFICIAL NOTICES.

New Brunswick Board of Education.

Drawing Books.

A New Brunswick Edition of Augsburg's Drawing Standard Course, has been prescribed by the Board of Education for use in the schools. The Graded Practice Book for pupils, price 10 cents each, and the Manual for Teachers only, price 75 cents, will be on sale in the book stores early in January.

Normal School Manual Training Courses.

Training courses for teachers desirous of qualifying as licensed Manual Training instructors, will be held at the Provincial Normal School during the session of 1906-7 as follows:

Short course.—January 8 to March 28.

Full course.—January 8 to June 22, 1906.

The short course is intended to qualify teachers for the license to teach Manual Training in rural schools. Candidates for admission must hold at least a second class Provincial license, and be prepared to furnish evidence of their teaching ability.

The full course is intended to qualify teachers for the license to teach Manual Training in town schools. Candidates for admission should hold a first class license, but teachers holding a second class license, and having a good teaching record, may be admitted on their merits.

In each course, students showing little aptitude for the work will be advised to discontinue at the end of one month from the date of entrance.

Tuition is free, and the usual travelling allowance made to Normal students will be given to teachers who complete their course and proceed to the teaching of the subject in the Public Schools of the Province.

Full particulars of the courses outlined above may be obtained from the Director of Manual Training, T. B. Kidner, Fredericton, N. B.

J. R. INCH,
Chief Supt. of Education.

Education Office, Fredericton, Nov. 24, '06.

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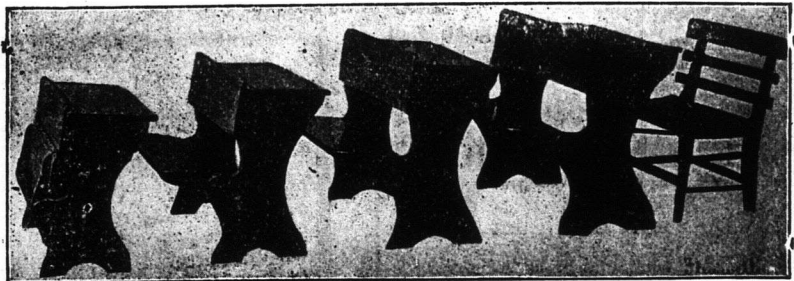
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