

The Educational Review.

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G. U. HAY,
Editor for New Brunswick.

A. McKAY,
Editor for Nova Scotia.

J. D. SEAMAN,
Editor for P. E. Island.

THE EDUCATIONAL REVIEW.

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THE REVIEW would again call attention to the necessity of changing the day of the annual school meeting from Thursday to Friday. Many of the teachers take advantage of school meetings to visit their homes. In doing so they lose Friday and make up the time some Saturday. Saturday teaching is most unsatisfactory. The change has no disadvantages and would be regarded with favour by the rate-payers.

NOW THAT a new high school building for boys in St. John is proposed, would it not be a good idea if the question of the best lighting should receive some attention. While the matter of ventilation has been duly regarded in all our new buildings, lighting has received no consideration. Some countries go so far as to enact laws regulating this important matter. Our spectacled boys and girls should point a warning to us. Let our school buildings be lighted consistent with the best experience to be obtained.

"IRREGULAR attendance is the great drawback in our country schools," writes a correspondent. That is a hint to many people, but especially teachers, to bestir themselves. Irregular attendance is certainly injurious,—injurious to parents, to rate-payers, to the school, and chiefly to the children who absent themselves. Teachers have it in their power to remedy this, wholly or in part, but it cannot be done by grumbling or fault-finding. See the parents and show what an irreparable injury is being done to the

child. Then go to work and spare no pains to make every hour's work in school so thoroughly interesting and effective that the school will become a centre of busy intelligent work. Children will be impelled to go to such a school, and their example will infect the neighborhood.

EDUCATION AT THE HALIFAX EXHIBITION.

The commission appointed by the Nova Scotia Government to manage the Provincial Exhibition for 1894, was assisted by various committees. In the department of natural history and education, Dr. Mackay presided. Associated with him were the school inspectors and the principals of the academies with Principal O'Hearn as secretary. This committee submitted a full list of diplomas, medals and money prizes for competition in all grades and kinds of school work, art work, and natural history collection. There was but little response. The space asked for was small on account of the uncertainty of being able to fill it. When the time came for placing the exhibits, however, it was found that less than one-half could be shown to advantage. The department of minerals, with a really fine display of gold, was crowded into ten feet square. There must have been something wrong, when in a province so rich in minerals as Nova Scotia, with so much capital invested, and so many people interested, a leading industry received no more space and much less setting off than "K. D. C."

Scattered throughout the educational exhibit in various places, there were small and very imperfect natural history collections—insects, plants, etc. The one exception to this was a really fine collection of birds stuffed by Col. Egan. Herbaria, by Miss Burgoyne of Windsor, and Miss Egan of Halifax, were very neat and took prizes. The Victoria School of Art and Design was limited to a space of ten feet square. The mechanical drawings and some paintings, by Miss Vondy, Miss Graham and others, were good.

The Young Manual Training School from Wolfville, made a most creditable display of carpentry, wood turnings and forge work. It was placed by Prof.

Oakes, assisted by Prof. Fuller, the manual training teacher, and attracted much attention and favorable comment. Acadia Seminary also made a handsome display of natural history drawings, crayon work and paintings, which were in charge of Miss Telford.

The Provincial Normal School covered about four hundred square feet of surface with drawings, maps, kindergarten work, natural history illustrations, etc. A few of the original designs were passable, and the drawings to illustrate the teaching of science, especially those of butterflies by Miss Jessie McKay and Miss Mary Bell, were very fine. Some departments of normal school work were scarcely at all represented—manual training, collections and preparations in natural history, agriculture and chemistry, microscopic work, etc. In spite of these defects, the normal school exhibit was one on which the friends of the institution could look with pride, as showing a great advance upon any former display of the kind in the province. Miss O. Smith, Prof. McDonald, and Mrs. Patterson of the kindergarten, are deserving of special credit. This exhibit received seven awards.

The remaining part of the educational exhibit consisted of a miscellaneous collection of school work almost wholly from Halifax and Dartmouth. Carpentry, sewing, map-drawing, writing and kindergarten work, were all good, and received over thirty awards. Morris street school showed several pieces of electrical apparatus in working order—all constructed by the boys. If the same amount of material had been shown in four times the space, it would have been a great advantage.

We would suggest that in future exhibitions the work be exhibited by grades and not by schools, and that ample space be provided. Public money is being misappropriated when those who utilize the exhibition merely to advertise goods manufactured in other countries, or goods inimical to national prosperity, occupy space and receive prizes which should have been given to education, mining, the fisheries, natural history, manufactures, etc.

Another suggestion. Let every school encourage its pupils to prepare some specially good exhibits in every department of school work. Let the best of such work be preserved in the school and utilized on examination day. It will greatly interest parents and other visitors. It can also be shown at local or county fairs. When a provincial exhibition takes place there will then be an abundance of material from which to select without unduly taxing the teacher and pupils. If school inspectors gave some attention to this matter they would find it very stimulating to their schools.

CONFERENCE ON ENGLISH.

In the June number of the REVIEW we deduced from the report of the Conference on Mathematics such practical lessons as we considered might be useful to our readers. The report of the Committee on English still more deserves our study. The members of this committee are all men of scholarly attainments and most of them men of considerable ability and sound judgment. But their task was much more difficult than that of the other conferences.

Many of the things that lie nearest to us and are of the greatest importance have less interest for us than those more remote. The courses of the planets were understood before the circulation of the blood was discovered. The learned were more interested in the barren philosophical speculations of the ancients than in learning the condition on which human life depended. Even the skilful use of their mother tongue was gained only incidentally through the study of the classics. We inherit the traditions and usages of a thousand years in the study of Latin. We would therefore expect a tolerably well defined plan of teaching this subject. We have scarcely yet begun the serious study of English with the double end in view of securing the highest intellectual discipline and the ready use of an instrument not only necessary for the interchange of thought, but perhaps even for its existence so far as we are concerned. We suppose it is on the principle that in shallow minds familiarity breeds contempt that so many do not think our mother tongue, which is more than half of life, worthy of one-tenth of the labor which we bestow on classics.

As the earnest thorough study of English is only just beginning, this conference had a more arduous task than the conference on such subjects as Latin, Greek and mathematics. Its work was done, however, with great care, and its recommendations are of the greatest value, though not by any means original. Indeed, we find that most, if not all of them, had been embodied in our own course of study. In teaching English, every good teacher will seek to make his pupils effective and ready in speaking and writing. Scarcely less important is it to have the intellectual tastes of every boy and girl so cultivated that good thoughts well expressed will be a delight, and their opposites distasteful. But the conference neglects to state that a third end in view should be the teaching of English in such a way as to make it the equal of any other subject as a mental discipline and superior to every other as a means of culture. We find many pupils who are taught to manipulate English words very skilfully,—we find that a few acquire a taste for

good literature,—but none receive from the study of English the mental power which it would give if properly taught. Why did the Conference ignore this third important object? Why did they not do for English what the evolution of a thousand years did for Latin? make it one of the best instruments of mental discipline that we yet possess. Well, we hope that hereafter, with less of the scholastic and more of the scientific method in our schools, it will not take a thousand years to evolve a rational and practical method of teaching English so as to secure to the fullest extent the threefold object in view.

One of the "most interesting opinions" in the report is "that the best results in teaching English in *high schools* cannot be secured without the aid given by the study of some other language." We are thankful that the *common schools* are not included. It is certain that some interesting results are obtained by combining the study of these languages as the Johnsonian English of some of our text-books shows. We prefer, however, the English of Shakespeare, Swift, Scott, and our own Joseph Howe, who "knew little Latin and less Greek." We have often wondered what other language the ancient Greek associated with his own in his linguistic studies—or was it the absence of any such misdirected energy that enabled him to achieve such miraculous results in languages, philosophy, and art in such a short space of time? We would seriously ask what the result would have been, if the study of classics had been intensified in the hands of a few specialists, and if all the time and energy which have been given by the great mass of students to classics during the centuries, had been as persistently and skilfully devoted to the vernacular and to other useful studies? There can be only one answer. The world would have been five hundred years in advance of where it is to-day. The rapidity of its progress would have been comparable to that of the Greeks during their golden age.

Before giving a short outline of the special recommendations which we find in the report, we will refer to a general principle, which, if acted on, would enable the teacher and pupil to find more than time and strength enough to master our course of study—such a bugbear to those who do not understand that underlying principle on which depends all true progress in education. The principle is this: Forms of expressing thought should be incidentally acquired in the search for truth. To illustrate by an example connected with the subject of our remarks: Composition can be incidentally taught by asking a pupil to describe accurately a plant which he is studying or an event in history, etc. Geography and history are thought studies, and form practically one subject.

Drawing is a mode of expressing thought and is best taught when illustrating forms of plants, animals, etc. Thus from a judicious concentration of studies there results such economy of time and energy, that the course of study no longer assumes the aspect of a grim tyrant. Under such a method, cram would be impossible. Rein, of Germany, Colonel Parker, of the United States, and Professor Hall, of Truro, are advocates of the theory of concentration of studies. Without being committed to any particular theory, Dr. Mackay has made this doctrine practical in Nova Scotia by largely modifying the course of study in accordance with it. The change implies trained teachers and less cram.

The recommendations of the Conference are for all schools from the primary upwards:

1. During the *first two years* at school children may acquire fluency of expression by describing correctly what interests them; and they may acquire some knowledge of penmanship and spelling by writing short sentences of their own construction. We have seen this method carefully followed out producing the best results.

2. This work may be greatly extended after the second year by directing attention to the more common irregularities of words and to idiomatic expressions. Paraphrasing is not recommended. Spelling is to be learned incidentally in connection with written exercises on the subject studied, and not from a spelling book. All written exercises should be carefully corrected.

3. Formal grammar, if studied at all in the common schools, should not begin earlier than the thirteenth year of the pupil's age, and should be completed in one year. All that is really necessary for the pupil to know of grammar, in order to enable him to write good English, may be learned incidentally.

4. Reading books should be mainly of a literary character, and should be early replaced by standard authors appropriate to the age of the pupil.

5. In the high school course English should occupy five hours a week for four years. In recommending so much time to the study of English the members of the conference are anticipating somewhat the importance that will some day be attached to the cultivation in school of a love for good reading. The teacher who will give his pupils a discriminating taste for good literature may well be excused for many shortcomings in other subjects.

6. Every teacher is responsible for the use by his pupils of good English in all their school exercises. By unremitting drill pupils may be made to be particular in their choice of words and phrases.

7. Giving examples of bad English and bad spelling for correction is likely to do more harm than good.

8. No student who is very deficient in ability to write good English should be admitted to college.

HOME PRODUCTION OF TEXT BOOKS.

The question of home production in the matter of text books for the school is from time to time agitated. All will agree that it is desirable that the work of publishing and printing school books should be done at home if possible, but opinions differ as to the propriety of accepting home authorship for text books except it can be demonstrated to be the best available. Successful authorship is confined to the few in any department, though books written are many. Most of us feel competent to criticize what we read but few could produce it. It does not follow that because a teacher can successfully teach a certain subject that he can write a good text upon it, any more than it follows that a person familiar with any subject can write acceptably concerning it. School books concern all the people, as well as the printers and authors. Any change in them involves great expense; hence changes should be made very deliberately, and always with due regard to what is the best: if it can be produced among us so much the better; but in any case let it be the best that can be procured. Some of the states of the union, a few years ago, in response to an outcry for home production in text books, gave way to it. This was notably the case in California. What has been the result? No fault has been found with the typographical excellence of the books, but an outcry has been raised from one end of the state to the other regarding the merits of the books as school texts, with the result that the use of many of them has been discontinued.

Our province of New Brunswick has a few text books in use which are home products, such as Hall's Arithmetic, Archer's History, and McMillan's copy books. No objection can be made to the make up of any of these, but if the truth must be told, there are no books in use in the schools that are more severely and justly criticized. It is the opinion of those most competent to judge, that they are not the best to be had, and no country can afford to be behindhand in such an important matter.

Let us have the printing done at home, if possible, but let us have home authorship only when its product is the best, and on no other grounds.

TALKS WITH TEACHERS.

Many of our schools are now provided with elegant flags, procured in many instances with infinite endeavor on the part of teachers and others. Are we making the most of them in striving to inculcate lessons of patriotism, and emphasizing historical incidents. As long as the teacher who was instrumental in securing the flag remains in the district,

the flag is made good use of, but with a change of teachers the flag often falls into disuse, and in some cases, from the appearance of the flag-pole and flag, it seems doubtful if the teacher is aware that a flag is on the premises. There are not many such cases, but they do exist. Have a definite plan of flag raising, and do not be afraid to use it frequently. When it is worn out there may be a way of procuring another. Our neighbors over the border can give us some lessons on the use of the flag.

Do not be discouraged if in trying to do what you think is for the best you meet with rebuffs. Farmers, lawyers, and doctors would be likely to resent it if any non-professional should dictate to them regarding their own departments, but many people think themselves well qualified to instruct the teacher as to her work. Do not be turned aside by any such monitors.

Not only teachers but all others who have given any thought to the matter, know that systematic physical exercises are most beneficial to children, and this applies more particularly to country children, whose walking and general carriage are noticeably defective. A teacher, fresh from the normal school, not long ago, attempted to introduce physical exercise into her school. She was met by a storm of opposition. "They did not send their children to school for that." She persisted, and was discharged. The teacher did right, and the district was wrong. It must not be thought, however, that this is a prevailing sentiment in the country districts.

Another teacher instructed her pupils in singing. Some of the parents objected most strongly, stating that their children should be more profitably employed. It is very satisfactory to know that such instances of ignorance on the part of the rate-payers are becoming very rare. Singing and physical exercises give a spice and variety to school work. Pupils enjoy them, and parents appreciate them. They are not only physically beneficial, but they prevent restlessness and give a useful vent to any surplus energy.

A gentleman related to me a few days ago a little incident which, while being amusing, may convey a hint. A number of teachers had applied for a vacant school. Among them was one who wrote a very neat and legible hand. One of the trustees objected to her at once, on the ground that her writing showed her to be an "old style" teacher—adding, "The new style teachers are all poor writers." The teacher did not get the place, but as a matter of fact she is one of our latest products. It is evident from this, that the "new style" teachers are in favor in some quarters, even if their handwriting be considered bad.

For the REVIEW.]

New Brunswick Schools of the Olden Time.

By W. O. RAYMOND, M. A.

Early in the year 1818 efforts were made to establish at St. John a central Madras school for the province of New Brunswick. To this end a liberal subscription was made by leading citizens, Lieut. Governor Smyth heading the list with £50, the city corporation and the corporation of Trinity Church each donating £100 and the following gentlemen subscribing £10 each, viz: John Robinson, Ward Chipman, William Black, William Pagan, Rev. George Pidgeon, Rev. Dr. Burns, Hugh Johnston, Robert Parker, Henry Wright, C. I. Peters, Ward Chipman, Jr., and Ezekiel Barlow. These contributions with lesser donations on the part of individuals and a legacy of £300 from Thomas Horsfield (late warden of Trinity Church) amounted in all to £1,000; quite a respectable sum to be raised for such an object by a city whose inhabitants then numbered less than nine thousand. The grant made by the city sufficed to purchase a desirable lot on the north side of King Square and the lot adjoining having been escheated to the crown for failure of heirs was also granted by the government to the Madras board. An eligible site was thus secured on which a commodious brick school-house was erected at a cost of about £1,000, of which sum the provincial legislature contributed £250. Before the completion of this building, however, the school had been opened in the old Drury Lane Theatre at York Point, on the 13th July, 1818. Mr. West came from Halifax to superintend the opening, and largely through his efforts a most auspicious beginning was made. After getting the school in thorough working order he returned to Halifax and George Bragg was installed as master at a salary of £200 per annum.

Up to this time the opportunities of securing a common school education were, for the most part, considered beyond the reach of the poorer classes. As a consequence large numbers of children were allowed to roam the streets in idleness: this naturally enough proved detrimental both to their manners and their morals. In speaking of the benefits which it was hoped would attend the establishment of National Schools, Edward J. Jarvis, first secretary of the Madras board (afterwards Chief Justice of Prince Edward Island) thus expresses himself:

"The loose manners and profane language of the boys with whom the streets have hitherto been thronged, proceeding from a lamentable ignorance and total want of discipline have been the theme of animadversion from the pulpit and an object too shocking to the feelings of all well disposed persons."

This paragraph should afford food for thought to those who are accustomed to take a pessimistic view of the age in which they live and to deplore the supposed degeneracy of the rising generation.*

Judging by the reports printed in the newspapers of the day the success that attended the establishment of the central Madras school in St. John was very remarkable. One of these reports states:

"The number of pupils is already very little less than at Halifax. The institution is honored by the very active patronage of his Excellency the Lieut. Governor, and the most respectable citizens are its most zealous friends. The master, Mr. Bragg, fully answers the high expectations which were formed of him; his wife has been well instructed in the system and has now opened a school for girls which is in a very promising state. A valuable building has been erected for the school which contains one of the largest rooms in either province and was opened on Christmas eve in a very interesting manner. A public and most satisfactory examination of the children was held on the occasion, and appropriate rewards were distributed to the most deserving by the Lieut. Governor. The institution has been incorporated by a charter from his Excellency, a valuable grant of land has already been given it and another is expected; a stock of school books and other necessary articles sufficient for the whole province for several years has been imported from England; and every school in New Brunswick that introduces the Madras system is gratuitously supplied with them; a choir of singers for the church has been selected from the scholars who have been carefully and ably instructed in psalmody, which is taught according to the Madras system. In short the whole of the concerns of this important institution appear already to be in as prosperous and promising a condition as its warmest friends can desire."†

This flattering reference to the Madras school was apparently quite in accord with public opinion. Major General Smyth, in his speech at the opening of the legislature in 1819, thus expresses himself:

"The Madras system established in the National schools has been found to be greatly superior to any former mode of instruction. Several of you must have had opportunity of witnessing the beneficial effects which have already resulted from the experiment lately made in the city of St. John through the liberality of individuals, and I earnestly recommend to your attention the expediency of extending the benefits of the same system to other parts of the province."

In their reply to his Excellency's speech the House of Assembly state that they "approve much of the Madras system of education now established in the National schools and from the earnest recommen-

* Stephen Humbert and Daniel Leavitt, aldermen for Kings ward in St. John, were appointed at a meeting of the city council held 22nd May, 1821, "a committee to build a cage for confining boys therein, under the steps on the Market Square, for improper conduct on Sundays and other days."

† Annual report Halifax local committee of S. P. C. K. for 1819.

dation of his Excellency and their own sense of the expediency of extending the benefits of it will give it every support in their power."

At the same session the Lieut. Governor, by message informed the Assembly of his intention to organize a Provincial Society in imitation of the National Society in England as soon as practicable, and that he considered the city of St. John the most suitable place for the central school.

In response to a petition of the committee of the St. John school the Royal Charter above referred to was prepared and granted by letters patent under the great seal of the province bearing date the 23rd day of August, 1819. The corporation was entitled "The Governor and Trustees of the Madras school in New Brunswick." The charter was confirmed by an act passed at the next session of the legislature. By the terms of the charter it was among other things required that the central school should be always maintained at the city of St. John and that the benefits of the institution should be extended to every other part of the province from time to time as the means of the corporation admitted. In accordance with this policy, masters and mistresses desirous of introducing the Madras system into the parish schools were received and instructed at the central school free of charge.

The income of the Madras board was derived from several sources, including S. P. G. appropriations for school-masters' stipends, contributions from the National Society in England, individual donations and bequests and an annual grant from the province. The first grant made by the Assembly was on March 11th, 1820: "The sum of £750 to the Governor and Trustees of the Madras school towards the support of that institution throughout the province." A like sum was voted at the next session; then for a year or two the grant was £500, but in 1825 it was increased to £700 and continued at that figure for some years.

At Minas Basin.

About the buried feet of Blomidon,
Red-breasted sphinx with crown of grey and green,
Swirl the tides of Minas, their crescent queen
On high, fleet-oared by galleys of the sun.
The tidal breeze blows its divinest gale!
The blue air winks with life like beaded wine!
Storied of Glooscap, of Evangeline—
Each to the setting sun this sea did sail.
Opulent day outpours its living gold,
Till all the west is belt with crimson bars,
Then darkness lights its silver moon and stars,—
The festal beauty of the world new-old.
Facing the dawn, in vigil that ne'er sleeps,
The sphinx her secret of the Basin keeps.

—T. H. Rand, in *Canadian Magazine*, Sept.

Partridge Island.

Teachers' Conventions.

P. E. ISLAND TEACHERS' INSTITUTE.

Two hundred and fifty teachers attended the Provincial Institute, held in Charlottetown, September 27th and 28th. All parts of the province were represented, and the proceedings were of a most interesting character throughout. On account of so many counter attractions the usual public meeting and concert were not held this year.

R. H. Campbell, Esq., President of the Association, presided at all the sessions of the Institute, in an easy and agreeable manner. The Finance Committee's report showed a balance of \$107.05 in favor of the Institute.

After the appointment of committees and routine business, a paper on "Patriotism," was read by Mr. S. D. McPhee, in which reference was made to the nihilistic tendencies of the present day; as an antidote for such he recommended the inculcation of the patriotic sentiment. To this end he recommended the intense study of Canadian history and poetry; more practical teaching, especially in geography and natural science. He also advocated the procuring of a Canadian flag for every school in the land. At the close of the discussion on this paper, a resolution was passed, instructing the secretary to ascertain from dealers the wholesale price of Canadian flags, with the view of having them procured for the schools.

At the evening session, a paper on "Needed Improvements in our School System," was read by Mr. J. D. Seaman. The improvements noted were—
1. Provision for the training of teachers. 2. Better pay for teachers. 3. A change in curriculum, providing for the teaching of the natural sciences. 4. A non-political Board of education. 5. More time given to the Chief Superintendent of Education and Inspectors to do educational work in the country, in the way of holding meetings of teachers and people, to inform them on matters educational. 6. A spirit of enthusiasm and devotion on the part of teachers. An interesting discussion followed, taken part in not only by teachers, but by His Honor Judge Fitzgerald, who feared that a little more asperity was shown to the politicians than was desirable.

Third Session.—One of the most interesting and profitable features of the Convention was Chief Superintendent McLeod's account of his visit to the schools of Massachusetts, Ontario and St. John, N. B. The conclusions reached by the Superintendent were, that in advanced work, the schools of the Province compared favorably with those visited by him. In primary work, our methods need remodelling somewhat.

Hon. T. Heath Haviland, an old and tried friend of education, addressed the meeting with words of cheer and good will.

W. D. McIntyre read a paper on "Means to Secure Regularity of Attendance."

Fourth Session:—This session was devoted to routine business, the following resolutions were passed and committees and officers appointed, viz.:

Resolved, That the executive committee continue to press upon the government the necessity of providing sufficient training for teachers at the Prince of Wales College.

Whereas, The text books in history and grammar are unsuitable,

Resolved, That the Board of Education be requested to prescribe more suitable texts.

Resolved, That this convention views with alarm the action of the government in withdrawing its support from the high schools.

Library Committee—Chief Superintendent McLeod, Inspectors Campbell and Bolderston and J. M. Duncan, Esq.

Committee on Text Books—Inspectors Murphy, Campbell and Bolderston, and Messrs. McSwain and McIntyre.

Committee to confer with the government respecting representation for the Institute on the Board of Education—Messrs. Seaman, Ross and McSwain.

OFFICERS.

President—W. D. McIntyre, Summerside.

1st Vice-President—C. W. Kiely, Margate.

2nd Vice-President—R. McDonald, Malpeque.

3rd Vice-President—A. D. Fraser, Murray Harbor.

Secretary-Treasurer—James Landrigan, Kensington.

Executive Committee—Misses Ross and MacCallum, and Messrs. Stevenson, MacKinnon and Arsenault.

A resolution calling attention to the lack of interest shown in the teaching of scientific temperance, and recommending that more attention be given to the teaching of this subject was passed by the convention; also one adopting THE EDUCATIONAL REVIEW as the organ of the Institute.

ALBERT COUNTY INSTITUTE.

The teachers of Albert County met in annual session at Hopewell Cape, on Thursday and Friday, September 20th and 21st. Forty-three teachers were enrolled. After taking up the miscellaneous business, the President, Wm. M. Burns, gave an address, pointing out the responsibility of the teacher's work. Prof. Rhodes next gave an interesting lesson, "Two factors and their product."

At the second session, the committee on prizes reported the following candidates who wrote the entrance examination in July, as the successful competitors for the prizes offered by this Institute. 1st Class—C. Archie Moore, Carrie L. Anderson, Annie L. Kierstead. 2nd Class—A. Laura Peak, Ella T. Forbes, Hattie L. Ramsey. 3rd Class—Susan Daley,

Louisa L. Colpitts, N. Tilley Steves. Junior leaving—Karl Duffy.

A. C. M. Lawson read a paper on "Facts," followed by a paper on "Notes on Teaching." These papers were discussed by several teachers.

The speakers of the evening session were Messrs. J. H. Dickson, Prof. Rhodes, Inspector R. P. Steeves and N. W. Brown.

At the fourth session, Robt. J. Colpitts gave an interesting paper on "Arithmetic," with black-board illustrations, which brought forth a very lively discussion.

The question, "What would you do with pupils that do not prepare their lessons?" arose at this session, and was discussed.

Before the session closed, Inspector R. P. Steeves spoke to the teachers pointing out the necessity of taking educational magazines, and the benefits derived from carefully reading them.

At the fifth session, N. W. Brown read an excellent paper on "Our Schools."

The following are the officers for the ensuing year:

A. C. M. Lawson, President; Miss Ella K. Moore, Vice-President. Wm. M. Burns, Secretary-Treasurer. Misses M. F. Fillmore and Sophia M. Peck, additional members of the executive.

A resolution, moved by N. W. Brown, seconded by A. C. M. Lawson, was passed at this session, whereby the teachers expressed themselves in favour of a "Teachers' Union," and a committee of three was appointed to bring the matter before the Provincial Institute at its next session. A vote of thanks was extended to the people and teachers of Hopewell Cape for their hospitality; to the manager of the Albert County Railway for free return tickets; and to the teachers who prepared papers for the Institute. The Institute adjourned to meet in its next annual session at Dawson Settlement.

KINGS COUNTY INSTITUTE.

The Kings County Teachers' Institute met at Hampton on the 13th and 14th September. Seventy-two teachers were enrolled—the largest in its history. An interesting public meeting was held on the night of the 13th. The following officers were elected for the coming year:—Miss Beatrice Duke, President; Amasa Ryder, Vice-President; C. H. Perry, Secretary-Treasurer. Miss Edith Darling, and Fred L. Daye, additional members of executive. The following programme was carried out: Paper on "Penmanship" by F. L. Daye; "Originality in Teacher and Pupil," by Miss Reicker; "Agriculture," by M. E. Harrington; "History," by H. W. Robertson; "Current Topics," by Amassa Ryder; "How do we Lead our Pupils to Think?" by Misses Edith Darling, Annie McFee, Louise Wetmore, Phoebe Robertson, Emma Gunter; "Our Duties as Teachers," by R. D. Hanson, B. A.

Temperament in Teaching.

AT GRADUATION.

"We have never graduated so promising a class," said a normal school principal to the president of the board, at the close of commencement exercises. "Did you notice particularly what a wonderful production the valedictorian gave us to-day? She became the leader of her class before the year was half out. She is a young lady of great promise, daughter of Dr. Russell of O—. She has inherited fine ability to begin with, has splendid health, and a perseverance that takes her over every obstacle. It is easy to prophesy a brilliant career for her."

"Will she teach?"

"Oh, yes. She is an enthusiast on the subject of teaching. She has had no experience outside of her teaching in the model room this year, but she will succeed, no matter where she is placed. No such word as fail for her. She is already engaged for next year in the city schools in R—; the best in the State you know."

"What kind of work will she have? In the high school?"

"No, she is to be a primary teacher. She has always had a preference for primary work."

"But is her manner gentle enough to deal with her children? Her eyes are pretty black, you know, and her voice has a something jarring in it that took away much of the pleasure of hearing her to-day. Has she got along well with the little children this year?"

"Y-e-s," said the principal, "she has always had good results. Oh, yes, she is a very bright girl; very bright."

SIX MONTHS LATER.

"I must take my little girl from her school," said an intelligent, patient-looking mother, to the principal of the largest school in the city of R—. "She grows more nervous and irritable every day. I hardly know the child as the little girl that entered Miss Russell's room, three months ago. I have just spent an hour in that room myself, and I understand it all now. My head is in a whirl, and all my nerves are on edge."

"Ah! what was the matter?" asked the principal, calmly.

"Why the whole atmosphere in that room is a drive—a whirl. Every child is keyed up, as if something might happen every minute. Miss Russell flies from one thing to another, snapping the blackboard with her pointer, and talking continually in that dreadful voice;—Mr. James, it would drive me wild to hear that voice one week."

"I am very sorry, madam, that you take your little girl from the room. Miss Russell came to us with the highest recommendations, and her children are making excellent progress."

"'Progress!' but at what a fearful cost to the children. I care far more for the health and disposition of my child than for her intellect. Time enough for that in the future. I am sorry to find fault. I am an old teacher myself, and my sympathies are always with the teachers, but Miss Russell is out of place. She should never have dreamed of a primary room. Can you not tell her so, and prevent any more harm being done?"

The principal sat alone in his office that night greatly perplexed. He had felt the truth of all this for weeks. But what could he do. To remove a successful (?) teacher for an unfortunate *temperament* would be without precedent. The world wasn't up to that point yet. It would be at the cost of his position to stir up the whole community by changing a teacher who led her class at the "normal," who graduated with honors and per cents that looked skyward, who could unravel the whole system of pedagogical philosophy no matter who kinked it, who was a favorite in society, played the church organ, and whose father had influential "friends on the board." What *could* he say, even if his courage should rise to the point of saying anything?

"Gentlemen, this young lady ought never to be a teacher in any school-room, but especially in the primary grades. *She has not the right temperament for a teacher.*"

He said that to himself to see how it would sound, as the shadows crept slowly into the room after everybody had departed. Then he shivered and smiled hopelessly as he foresaw the result of such a remark to the honorable gentlemen at the next monthly meeting. As well ask for a path to the moon.

"No, no; I can never do that. It would be utterly useless, and I should be accused of every purpose but the true one. And yet that lady was right, though I didn't tell her so. I am glad to escape myself from that room every time I go into it. And it will be no use to talk to Miss Russell, either, I fear. She is in the 'know it all' stage, to begin with, and then how can she conquer her inheritance of that temperament and that voice."

Mr. James put on his hat and went home. His conscience was a good deal pacified, because he had gone so far as to analyze the matter and decide as to the right of it. He didn't see that he could do anything more.

Now is not Miss Russell, who is the immediate cause of the trouble, the least to blame of any con-

cerned? She is inexperienced, and overblessed with energy, yet with the conceit of youth and success is doing the best she can from *her* point of view. The normal principal who let her go forth with his recommendation as a teacher, and far worse as a primary teacher, knew perfectly well that she was unfitted by temperament for such an occupation;—why did he not have the conscience and courage to tell her so?

So long as normal and training schools have neither the power nor the courage to weed out their classes, retaining only those who are temperamentally fitted to be teachers—other things being equal—this evil will go on. The accumulated result of the evil is beyond human estimate. Children have a *right* to the best influences. Who can be forgiven for robbing them of this right?—*Primary Education.*

That New Scholar.

It was in the spring that the Williams family moved to N——. Leaving the old home at Eastville had been hard for all of them, but Mary felt that hers was the greatest grief, for she parted from the “dearest teacher in the world,” and from the boys and girls with whom she had gone to school ever since that first proud morning when she left her babyhood behind, and started off with all the dignity becoming a six-year-old and a possessor of a slate and a First Reader.

Though she vowed she should never find another school like that, yet when on a certain May morning she started for school in N——, it was with an unrecognized expectation down deep in her heart, that she would find that schools were about the same everywhere. But alas! the teacher, Miss Stone, did not look at all like her heart’s admiration, Miss Prince, for she surveyed the shrinking little girl critically, seemed to find her disappointing, and remarked to Mrs. Williams that she did not believe the child could keep up with that grade. Mary wilted visibly at finding herself at such a mental disadvantage. How she clung to her mother and dreaded to have her go! And what a sad teary face it was that was lifted for the good-bye kiss?

The school had already begun, so when the teacher ushered poor little Mary in she encountered the gaze of one hundred curious eyes. In fact, as she told her mother, it seemed as if the room were *all eyes*. How relieved she was when she could sink into her seat and feel at last that the terrible gaze was withdrawn. After she had recovered a little from her fright, and began to listen to the recitation, she found it was history. Now that was her favorite subject, and she brightened up as she began to yield to the interest of

the recitation. She was horrified at hearing Miss Stone say, “That new girl may tell us the result of the battle of Lundy’s Lane.” It would not have been so bad really, if the teacher had not called her “that new girl,” but those true words brought a great sob of home-sickness into her throat. At the same instant fifty heads turned around, and the one hundred curious eyes were focused upon one poor little frightened girl. She rose—she could think of nothing else to do—but—but—what was the answer?—why couldn’t she think of it?—she knew it once—how loud the clock ticked—no that was her heart thumping—oh, if those eyes would only turn away, perhaps she could think—a half hour seemed to pass—finally she stammered—“The result of the battle of Lundy’s Lane was that the South gave up slavery,” then she dropped cold and trembling in her seat. She knew that the fifty faces smiled—not fifty-one, for Miss Stone seemed to find her too hopelessly dull to smile at—and then she heard a giggle on the right, and a snicker on the left. At recess time Mary went out with the class—anything was better than the oppression of the schoolroom—but no one spoke to her, though she saw the girls whisper together while they frequently glanced at her. They were really trying to urge each other to speak to her, but of course she did not know that. The terrible morning finally closed, but a certain sad little girl could hardly keep back the torrent of tears until she got within the doors of her own dear home. Her mother kissed her and soothed her as only mothers can, and back again little Mary trudged for the afternoon session of the inquisition. She was called upon in every recitation that day—sometimes she could blunder upon the right answer, but oftener could not. The next day a girl spoke to her. The third day her new acquaintance asked her to come and play “I spy” with the girls, and—well, you know the rest. Mary found out that the owners of the hundred curious eyes were not horrid boys and girls after all—she became attached to them, and fond of her school life, but she was never heard to call Miss Stone “the dearest teacher in the world.”

At the end of a year, Mr. Williams was sent by his firm to look after their interests in another city, and thither the family must move. When Mary was told they must leave N——, she said, “Oh must I go to a new school? Mamma, I can never go through that again. Whenever I have bad dreams, I always think I am going to a strange school and I wake up crying. Oh, I can’t do it, mamma, truly I can’t.”

After they had moved, Mary purposely made herself very useful around the house, fondly hoping that she might prove so necessary that she would not be

sent to school. Whenever school was mentioned, she would burst into tears and say, "Oh, I can't go, I can't go." But her mother was too wise and prudent to fail to do what was best, so one morning after breakfast she remarked quietly, "You may put on your hat, Mary, for I am going over to school with you." Mary knew the tone—it was no use to argue or protest.

After the principal had examined Mary, she said, "Now, come with me and I will give you a teacher whom you cannot help loving." She stopped at the door of a room and said, "Miss Lester, will you please step here a moment? I have a new scholar, and I think you will like her." A pleasant voice said, "I know I shall," and a pair of kind gray eyes smiled down into Mary's uplifted blue ones. Then Miss Lester said, "For a day or two, you may feel lonesome and strange, but you must be brave and plucky and you will soon feel at home, I'm sure." Mary inwardly resolved that she wouldn't mind it a bit. Then Miss Lester added, "Now to-day I shall not call upon you to recite. You may just watch so as to learn our ways of doing things. Won't you come in a little while, Mrs. Williams, and see Mary's new school?" As they entered, two or three glanced up at Mary, but instantly looked down again, for Miss Lester had told them so often that it was unkind to stare at a new scholar. Mary was so interested in watching Miss Lester and noting the new way of doing things that she saw her mother rise to go but felt no special concern. It was such a blessed relief to know that she would not be called upon to recite. It seemed only a little while until the recess time came, and Miss Lester came up with a curly-headed girl saying, "Mary, I want to introduce Florence Wright to you, and I hope you two will be good friends. Now, Florence, take Mary out to the play ground, and introduce her to our girls and make her feel at home." Florence, proud of her trust, escorted Mary to the play ground, and soon they were surrounded by a group of girls to whom the stranger was gravely introduced. One girl gave Mary half of a big red apple, another announced that she lived on the same street, and would call for her in the afternoon, while all insisted that she go with them for wild flowers on the next Saturday.

After recess, when the school had re-assembled, a certain fair haired Alice came, slate in hand, and slipped into the seat with Mary, saying, "Miss Lester told me to come and sit with you while we worked examples, so you can see how we put them down. She said you may ask me about anything you don't understand, and if I can't explain it, then you are to ask her."

About noon, Mrs. Williams came to the door to meet her weeping daughter, but, to her surprise, a happy-faced girl came bounding up the steps, and as she hugged her mother, said, "Oh there never was such a nice school! I know all the girls—and Flossie is coming to call for me this afternoon—and may I go to the woods next Saturday?—and, oh, mamma, they didn't stare a bit, did you notice that?—and isn't Miss Lester lovely?"

A Course in Primary Botany.

Study actual plants.

During the fall months there are still many plants in flower. Take up a number of these plants with descriptions of the roots, stem, leaf, inflorescence and flower. Keep a list of all technical terms introduced in the description. Have drawings made of the various parts, their arrangement and relative positions. These drawings may be used in the later months for comparative work and teaching the principles of classification. The technical terms may be used for drill work, by requiring students to illustrate on the blackboard, and describe in works a raceme, a fibrous root, a palmately net veined leaf, etc., if these terms have been used in the previous descriptive work.

During the early fall, the students may be required to make a collection of leaves, fastening the leaf well pressed on a page of the note book, leaving the opposite page blank for drawing and description. This may be done during the winter months. A collection of fruits may also be made. A very good plan is to enumerate a dozen which should be gathered: for example, the samara of the maple, beech-nut, poppy, willow herb, evening primrose, wild mustard, etc. The apple, pear, grape, are always obtainable.

A practical study of these will lead to a discussion of the method of formation of the fruit, pollination and fertilization.

During the winter months also, the students may be allowed to see microscopical preparations of various parts of the plant, pollen, stoma, epidermis, cross section of stems, showing the general cellular structure of all parts of the plant.

If this does not occupy all the time until spring, a few lessons may be given in the identification of plants, using the descriptions and drawings of those made during the fall term.

As soon as spring opens, field work begins, and representatives of the prescribed orders are studied and identified, the characters of the various orders learned, and the general principles of classification reviewed and further illustrated.

A very good plan, pursued in some places, is to require pupils to mount and properly classify fifty or twenty-five wild plants. — *Educational Journal, Toronto.*

Mental Arithmetic.

This subject is generally not well taught in many schools and, I think that this is due to the poor, thoughtless way in which the candidates for teaching are taught the subject. The first smart boy or girl that gets the answer is allowed to hold up his hand, and if two or three in the class get the right answer this is considered sufficient and the others give up trying when they see the hands up of those near them.

The teacher should give out the problem slowly and distinctly, and but once, and the class should be required to solve it *mentally* and in *perfect silence* and without giving any sign or signal when they are ready to answer. After a space of time sufficient for the solution of the problem has elapsed, the teacher gives a signal upon which those who have completed the process raises the hand. One of these is required to give the result. The teacher then ascertains how many agree with it, and calls upon some one to *repeat* the problem, solve and analyze it for the class. Then other problems are proceeded with in the same manner. In order to secure the attention of the whole class, no intimation, by word or glance should be given as to the member of the class to be called upon for an answer or solution, so that everyone considering himself liable to be selected for that purpose, shall concentrate his mind upon the question.—From report of John Johnston, Esq., I. P. S. for South Hastings.—*In Toronto Educational Journal.*

Facts for the Temperance Lesson.

As showing the way in which the use of the milder alcoholic beverages beget a taste for the stronger, we quote the following from an exchange :

The evil of drink is being realized very seriously in France. Formerly the French ranked among the most sober people of the world, now they consume more alcohol than any other nation except Belgium. The last twenty years have done the mischief, and while England only consumes half her former amount, France has taken her neighbor's place in the scale. Drinking to excess most affects the north and centre of France, the southerners caring less about strong liquors. In the opinion of many experts, drink is at the root of the gradual diminution of population, to say nothing of any deterioration of the national physique.

In England there exists an organization known as the National Union of Teachers. There are very many occasions on which teachers suffer most unfairly from over-bearing and ignorant trustees and petty J. P.'s. The N. U. T. has done admirable and useful work in supporting its members against such injustice. In the Atlantic Provinces would not a Teachers' Union be useful in more ways than one?

Fables of History.

The Glasgow *Herald* is responsible for thus ruthlessly breaking many of our images. How often have the following "chestnuts" been retailed to admiring audiences of juveniles. Is it possible they will no longer serve such a useful purpose?

The story of King Arthur and his round table is a myth, although what purports to be the round table is still to be seen in a south of England town.

Alfred the Great did not visit the Danish camp disguised as a minstrel. There is no good reason to believe that he could either play the harp or speak Danish.

The maelstrom is not a whirlpool which sucks ships down into the depths of the ocean. It is an eddy, which in fair weather can be crossed in safety by any vessel.

Queen Eleanor did not suck the poison from her husband's wound, as she did not accompany him on the expedition during which the incident is alleged to have taken place.

The "Man in the Iron Mask" did not wear a mask of iron. It was black velvet, secured by steel springs.

Cæsar did not say, "Et tu Brute." Eye-witnesses to the assassination deposed that he died fighting, but silent, like a wolf.

Richard III was not a hunchback, but a soldier of fine form, some pretensions to good looks, and great personal strength and courage.

Blondel, the harper, did not discover the prison of King Richard. Richard paid his ransom, and the receipt for it is among the Austrian archives.

Cæsar did not cross the Rubicon. It lay on the opposite side of the Italian peninsula from the point where he left his own possessions and entered Italy.

Fair Rosamond was not poisoned by Queen Eleanor, but after long residence as a nun in the convent of Gadstow, died greatly esteemed by her associates.

One of the main hindrances to adequate preparation by the teacher of the next day's work is that she has too many subjects and that too many hours of actual teaching are required of her. There are many lessons that it takes longer to prepare than to give; and these lessons are the most economical of time and energy in the long run, because of the vivid and co-ordinated impressions they produce in the minds of the scholars. It will be long before the public appreciates this. The common idea is that all the preparation of a subject is done by the text-book maker. Teachers must convince the laymen that this is not so. One of the best modes of proving that much preparation is needed is by making all you can.—*N. Y. School Journal.*

Spend no time in telling children what they already know, or what they are likely to find out soon by their own unaided efforts.—*Williams.*

Cost of War and Education.

There is no better proof, says the *Journal of Education*, of the essential barbarism of even the most civilized nations of the world than is afforded by a comparison of the money they expend for the maintenance of physical supremacy as against the expenditure for mental improvement. Though it be assumed that brain is better than brawn, there is no evidence that statesmen so regard it. In some tables recently compiled, the amount per capita expended by various governments for military and educational purposes is set down as follows :

	Military.	Education.
France.....	\$4 00	\$0 70
England.....	3 72	62
Holland.....	3 58	64
Saxony.....	2 38	38
Wurtemberg.....	2 38	38
Bavaria.....	2 38	40
Prussia.....	2 04	50
Russia.....	2 04	3
Denmark.....	1 76	94
Italy.....	1 52	36
Belgium.....	1 38	46
Austria.....	1 36	32
Switzerland.....	82	84
United States.....	30	1 85

—*Scientific American.*

Professor Blackie, of course, can never be omitted from any article in which Scotch universities are mentioned; equally, of course, he must be introduced in connection with feminine beauty and Greek. Here he is :

The supreme humorist was, of course, Professor Blackie. Unhappy they who must toil through the Aorist and the Middle without his jokes and quips! The choicest of them are too well-known to be repeated here—especially his now classic repartee of “the asses.” Once we were in Homer, construing lines about “the grey-eyed Athene.” “Talk of eyes!” sings out the Professor, “You should come and see Mrs Blackie!” “Bravo! Hooray, hooray!” we cheered; and it is wonderful how a lusty cheer helps the intellect.

The declaiming against examinations, that is so prevalent, is not against examinations *per se*, but against the use made of them. How is a person to know anything about the attainments of another without some sort of examination? The teacher has been making this examination during the entire year. No *final* examination will give her any new light. But the superintendent may wish to compare the knowledge and power of pupils of different schools in the same grade. A general examination will help him to do that.—*Public School Journal.*

The Work of Dust

Dust has a very large share in nearly all the phenomena of the earth's atmosphere. It is what makes the clear sky appear blue; and when we look up into the sky we see the dust in the atmosphere illuminated by the sun. There is nothing else before us that can permit the light to reach the eye. Light goes invisible, straight through all gases, whatever their chemical composition. The dust catches it, reflects it in every direction, and so causes the whole atmosphere to appear clear, in the same way that it makes the sunbeam visible in the darkened room. Without dust there would be no blue firmament. The sky would be as dark as, or darker, than we see it in the finest moonless nights. The glowing disk of the sun would stand immediately upon this dark background, and the same sharp contrast would prevail upon the illuminated surface of the earth—blinding light, where the sun's rays fall, and deep black shadows where they do not. Only the light of the moon and the stars, which would remain visible in the daytime, would be able to temper this contrast in a slight degree. The illumination of the earth's surface would be like that we see with the telescope on the lunar landscapes; for the moon has no atmospheric envelope that can hold floating dust. We then owe to dust the even moderately tempered daylight, adapted now to our eyes; and it is that which contributes much to the beauty of our landscape scenery.—DR. P. LENARD, in *The Popular Science Monthly* for September.

THE PERMANENT ELEMENT IN EDUCATION.—Knowledge that is not constantly used passes out of mind, yet like the food assimilated by the physical body, it serves its purpose in the mental strength and energy gained through it. Indeed, it may be said that information becomes more and more the dross, and education the pure metal remaining from a general school or college training. Thus the housekeeper, forgetting her Latin, Greek and mathematics, her French, German and history, her biology, astronomy and economics, retains as the most valuable heritage of her education a training in habits of accuracy, observation, good judgment and self-control that enables her to be the master of an unexpected situation that may arise.—*Lucy M. Salmon.*

Captain Wiggins, a British sailor, has convoyed some ordinary merchant steamers through the Kara Sea to the mouth of the Yenesei, the great water way to the very heart of Northern Asia. The Czar has acknowledged the great service to commerce by a valuable presentation of plate.

A Teacher's Mistake.

Teachers misapprehend some of the best rules given for their self-direction. For instance, a young teacher read in a profound pedagogical treatise (which she thought it her duty to struggle through, though it was too deep for her) that "the educator's first aim must be to awaken the *desire* for learning." She believed this without getting the true sense of the words, and proceeded to make a laborious and wrong application. She talked to her frolicsome youngsters for five minutes every morning on the power of knowledge, the interesting field of higher study upon which they would enter some day if they progressed well in the three R's (which mainly occupied them at the time;) the delight their parents would experience in seeing them become proficient scholars, and the duty of every one to get all the knowledge he can so as to do the most good in the world. Most of the children were unaffected by this, turning to the school tasks of each day in the same spirit as before. The most dutiful among them gained a little fresh stimulus at first, but it was not long before the best boy in the class was seen to yawn during the morning talk.

The mistake this teacher made was in *beginning with the abstract* and in offering distant rather than immediate incentives. She should have interpreted the words of the philosopher this way: "The educator's first aim must be to awaken the desire for *the fact he is about to teach*." Then instead of talking goody-goody talk to the children about the beauty of knowledge she would have endeavored to plan and give each lesson in such a way as to rouse their curiosity before admitting them to the facts; and in the long run the desire for such knowledge would have taken such a deep root in their hearts as to make them independent and life-long students.—*N. Y. School Journal*.

The temper is to the teacher what the voice is to the singer. Though your teacher be trained beyond the dreams of the most optimistic of educationists, though his knowledge be as deep as the ocean and his will as strong as death, though the pedagogic passion, the love of teaching, glow white within him, if his temper be awry he is but worthless, and his gifts and training things thrown away. So that a teacher should cherish his temper even as a tenor cherishes that larynx of his.—*H. G. Wells, in Educational Times, London*.

"If scientific education is to be dealt with as mere book-work, it will be better not to attempt it, but to stick to the Latin grammar."—*Prof. Huxley*.

A DICKENS JOKE.—Mr. Edward Bulwer Lytton Dickens, M. P. for Wilcannia, has just perpetrated a really capital joke in the New South Wales Parliament. That body contains a member named Willis, who is remarkable not only for the prodigious length of his speeches, but for the short, snappy sentences in which he delivers them. Mr. Dickens followed him in debate the other night and the first words of the youngest son of the novelist were—"My father created the historic phrase 'Barkis is willin',' but if he were here to-night he would probably have altered it to 'Willis is Barkin'." This exceedingly felicitous hit brought down the House, the galleries joining in the general laughter.

HOME WORK.—Educational methods that require children of tender years to spend two or three hours to prepare lessons for recitation in school, or for the teacher to take time to explain and criticise is wrong. Children should not have anything but the simplest exercises to do at home, such as would take but a very little time, and not a thing that would cause worry, annoyance, and the loss of sleep over the possible consequences of failure.—*The Barrie Advance*.

TOO MUCH.—For a salary little in advance of a laborer's wage, the teachers are expected to be of unimpeachable character—as they usually are—to instruct spiritually, morally, physically, socially, and even industrially the children committed to their charge, and all these in addition to giving the usual text book education. Would-be reformers, enthusiasts and busybodies, who criticise the school system most severely, but not always wisely, usually do more harm than good.—*The Inland Sentinel*.

Classical Oxford boasts as probably its twelve greatest men—Wickliffe, Wolsey, Raleigh, Hampden, Chatham, Addison, Johnson, Adam Smith, Gibbon, Shelley, Newman, and Matthew Arnold. Mathematical Cambridge is represented by Milton, Bacon, Cromwell, Jeremy Taylor, Newton, Darwin, Spenser, Byron, Wordsworth, Pitt, Macaulay and Thackeray. Which university appears to best advantage?

Two little girls are on their way to school. It is in June. The one is dejected and tears are seen in her eyes. "What is the matter, Katie? What are you crying for?" asked the other. "My mamma is again visiting the bathing places, and is taking only Elsie with her and not me." "But why not you?" And Katie sobbing with unexpressive grief says:—"Because I am always so healthy."

Where the Day is Born?

The maritime powers of the world have agreed to make London the time centre and the 180th degree of longitude from London (or Greenwich) as the point where the day changes. This meridian, therefore, *leads the day*. Its passage under the 180, or midnight, celestial meridian, marks the beginning of a new day for the earth; here *to-day* becomes *to-morrow*.

It is here, then, that Sunday is born, just to the west of Honolulu. But bear in mind that the day travels westward: therefore this new-born day does not visit Honolulu until it has made the circuit of the globe. Honolulu and New Zealand are only about thirty degrees apart in longitude, but they are a whole day apart as regards any particular day, *because the point at which the day changes lies between them*. Sunday born on the 180th meridian is a long way off from Honolulu. It is morning there, too, but it is Saturday morning, while in New Zealand it is not yet day, but the Sunday dawn is breaking. It is clear, then, that if it is Friday (near midnight) at Honolulu to the *east* of the line and day (near 1 a. m.) to the west of it, a ship sailing from Honolulu to New Zealand, or from east to west, must sail out of Friday into Sunday, and thereby skip the intervening Saturday, and gains a day; and *vice versa*, a ship which sails from New Zealand, where Sunday has begun, to Honolulu, where Friday has just ended, and Saturday has begun, or west to east, must lose a day.—*Goldthwaite's Geographical Magazine*.

[Ten minutes spent in the study of this subject, with the aid of a globe, placed so that the north pole will point to the north, will be very interesting and profitable to the class in geography.—ED.]

The chief elements of the power of discipline are: ability to win the love of pupils; skill in appealing to good motives, and force of character to exercise moral constraint and restraint over those who cannot be reached by the first two.—*Dr. Thomas M. Balliet*.

In the prohibition plebiscite vote in Nova Scotia there were 52,878 votes cast, about 85 per cent. of the electorate: of these 11,419 votes were against prohibition, while 41,459 were in favor of it. That is nearly four voters out of every five thought it wise to try to suppress the liquor traffic by law, and that the country was now ready for such a law.

Canada has one million miles of unexplored territory

England has won eighty-two per cent of the wars she has engaged in.

The child should be told as little as possible, and induced to discover as much as possible.—*Spencer*.

The main business of the teacher is to get the pupil to teach himself.—*Joseph Payne*.

Prof. Peterson, of Dundee University, Scotland, has been appointed Principal of McGill University, Montreal.

In compliance with the request of a correspondent, Principal Cameron will furnish for the November and December REVIEW questions on Shakespeare's Othello and Scott's Ivanhoe, but his intention will be only to help in the study of the works, not at all to help in preparing students for examination.

The appointment of Geo. A. Inch, B. Sc., to a position in the normal school of New Brunswick is an excellent one. Mr. Inch has many friends among the teachers of the province who will be glad to hear of his appointment, while his zeal and ability as an instructor, his sterling character, and his general disposition are qualities that will ensure his success in the position to which he has been appointed.

The N. B. University extension course of lectures in St. John has been arranged for the coming season. Prof. Dixon will continue his lectures on Astronomy, begun last winter. The other lecturers from the university are Profs. Stockley and Davidson, while the Rev. J. deSoyres and G. Ernest Fairweather, of St. John, will also deliver courses. These lectures have undoubtedly accomplished much good in the past in enabling students of limited means to pursue definite studies, and this year the lectures, it is expected, will be more generally attended than previous courses.

Dalhousie College opens this year with a larger attendance than it ever had before. The new Professor of Classics, Howard Murray, M. A., delivered the opening address on the "Classics," their use, present position and future prospects. Mr. Murray, whose education and natural qualities fit him pre-eminently for his present position, has for his subject the enthusiasm of a true teacher. For nearly an hour and a half he held the delighted attention of his audience, and convinced the friends of classics and many others besides that there is no other instrument of mental culture as effective as the study of the dead languages. We will present the readers of the REVIEW with an outline of his arguments in our next issue.

FIRST YEARS AT SCHOOL. A Manual for Primary Teachers, by S. B. Sinclair, M. A. Price 68 cents. Publishers, E. L. Kellogg & Co., New York. This manual will be a valuable help to all primary teachers, especially those who are new to the work. Among other things it takes up and discusses discipline, language lessons, reading—an electric method,—number work, and manual and moral training. The author does not claim to set forth any new methods, but having had the oversight of four hundred children during their first year at public school, has put together those ways and means which are most reliable.

Temperance Teaching in the Boston Schools.

Recently a spirited discussion took place in the Boston school committee, on a motion to substitute "Blaisdell's Young Folks' Physiology" for Smith's Elementary Physiology in the Grammar Schools. It will be seen how far Boston is behind the Maritime Provinces in this matter, when it is known that the Boston text book taught that alcoholic drinks and tobaccos produced a feeling of tranquility, made ideas flow more freely, made wit brighter, and philosophy more profound. Mrs. Keller, who led in discussion, pointed out that such teaching, besides being entirely untrue, had a tendency to lead the child who wanted ideas to flow freely to use alcohol and narcotics. A narcotic condition is not correctly described as a feeling of tranquility. When the motion was put, Mrs. Keller was supported by sixteen votes against four, so that Blaisdell's book which is as sound as our own Health Readers, is to be the temperance text book of the grammar schools of Boston hereafter. Martin's "The Human Body," was made the text book on physiology and hygiene for the high schools.

Common Sense Arithmetic.

Let the different pupils measure the room for themselves. You will be surprised at the awkwardness many display when first given a rule and asked to do practical work. Our rules were furnished by Milton Bradley & Co., and cost us ten cents per dozen. After measuring the room, the length of one's step, the height of several, and they can form pretty good and correct ideas of the length of objects by "mental measurement," the following plan of questions may be followed:—

1. How many yards in the length? The width?
2. How many inches high is the room?
3. Edward's kite string is 18 feet long: How many feet must be put to it to reach along the one side?
4. Charles is 4 feet high. He stands on a step ladder and his head just touches the ceiling: How high is the ladder?
5. Bella steps two feet at a time: How many steps does she take to go the length of the room?
6. If the four walls were placed end to end, how long would they all be? The end walls only?
7. A fly walks a yard every two minutes: How long will it take her to reach the ceiling if she starts on the floor?
8. How long a card will reach round the room?
9. There are eight windows: How many panes if there are 8 in each window, and what are they worth at the rate of 9 cents apiece?

10. Which can you walk the sooner: Along the end wall or the side wall? Explain.

11. The stove stands in the middle of the room: How far to each end? To each side?

With more advanced classes the cost of plastering, flooring, painting and carpenting can be given. Let the rates be as near *actual* as possible and the knowledge gained has a double value.

—How it is done.

2345621
7654379
2598432
7401568
2132142
3121421

25253563

There are experts who can add very rapidly. The best of them cannot add up a column of *ones* any faster than you can. Here is how some of the "rapid addition" is worked. The "professor" writes a line of figures, then another, and so on. The second line, however, added to the first makes *nines*, except at the extreme right, where the two figures add to *ten*. The third and fourth bear the same relation, and as many more as he chooses to put down. The last two lines, however, are put down at random. Now, to add these columns, he begins anywhere, perhaps at the left hand side, putting down 2 (the number of pairs above), then by simply adding the two bottom lines, he gets the correct sum. Try this. If your pupils do not "get the idea," you can use it to much advantage in drilling them in addition, without having the labor of adding long columns yourself.—*Educational Record, Quebec.*

How to Review.

If subjects are taught in the best manner, little time will be needed for review. Each lesson will be a review of all the principal ideas upon which the lesson of the day is based. And when a topic is finished, the essential ideas will all be recalled and united into a regular succession, in which each one will naturally follow from what goes before it. This is what is meant, or one thing that is meant, by organizing our knowledge. This organization of knowledge should be attended to at each recitation by beginning it with a series of "running review questions" leading up to the lesson of the day. This injunction has been often repeated in these pages and as often illustrated.—*Public School Journal.*

All kinds of insects, so far as known, are afflicted with some sort of parasite.

EVERY EFFORT the teacher can put forth to gain the confidence of the pupil in her school is well expended. It is only when there exists between teacher and pupil a perfect freedom and sympathy that there is a successful school. This sympathy, this *entente cordiale*, may be easily secured and maintained. From the teacher the first advances must come, and sincerity, frankness and faith must be most dominant factors in the overtures. Teachers are always met more than half way in their advances toward their pupils, and when confidence is inspired there is little difficulty in arranging amicable relations and conditions. There should never rest for a moment in the mind of a teacher the thought that friendly intercourse will tend to lessen the dignity of her position. The "dignity of position" is best maintained by ignoring it. Teachers are respected for what they are, not for what their position makes them seem to be.

QUESTION DEPARTMENT.

INQUIRER.—(1) Describe and explain the manufacture of plaster of Paris. What are its uses, and what properties does it contain to fit it for those uses?

(2) How many toes has a cat, a cow, hen, duck?

(1) If a piece of gypsum be heated in a closed test tube over a spirit lamp, drops of water will be found to condense on the side of the tube. The powder remaining, and from which the water is expelled, is plaster of Paris. On a large scale this material is manufactured by similarly heating ground gypsum in large iron kettles, the resulting material being often called by the workmen "boiled plaster." Mixed with water it remains for a time in the condition of a semi fluid mass, admitting of its being readily poured into a mould or other receptacle; but soon "sets," or hardens, thus acquiring a permanent form. It is used for stucco work, interior finishing of buildings, for the manufacture of moulds for pottery, for stereotyping, and many other uses.

(2) By all means count them and see. The knowledge thus gained will be original and beyond dispute. Unless abnormal cases occur, the number in each instance will be that of actual observation.

For Miss B. H. Y.—

(1) To describe the triangle required you would require a pair of compasses and a diagonal scale. To measure the angles you need a protractor. The use of these instruments could not be conveniently taught in our columns; nor is it necessary, as all the desired information can be found in any book on practical mathematics.

(2) There are many chemical elements which are acted on by others only when they are changing their chemical relations; S and O have no tendency to unite when brought together in ordinary temperatures. It is not known why some elements combine chemically under almost any conditions, and others show no chemical affinities for each other.

(3) Your proof of Euclid, Book I, 31, is correct.

For C. L. A.—

(1) Hamblin Smith's arithmetic, p. 280, Ex. 206.

Amount of \$1, interest compounded 4 times 2%
 = \$1.02, raised to the 4th power
 = \$1.08243.

∴ interest = \$.08243; rate % = 8.243.

(2) Hamblin Smith's arithmetic, p. 187, Ex. 289.

Interest = $\frac{\text{Prin.} \times \text{Time} \times \text{Rate}}{100}$ See page 169.

Disc't. = $\frac{\text{Prin.} \times \text{Time} \times \text{Rate}}{10 + \text{Time} \times \text{Rate}}$ See p. 179, Ex. 2nd part.

But the given problem—

$$\frac{80}{87} \times \text{Interest} = \text{Discount.}$$

$$\therefore \frac{80}{87} = \frac{\text{Discount.}}{\text{Interest.}}$$

$$= \frac{\text{Prin.} \times \text{Time} \times \text{Rate}}{100 + \text{Time} \times \text{Rate}} \times \frac{100}{\text{Prin.} \times \text{Time} \times \text{Rate}}$$

$$= \frac{100}{100 + \text{Time} \times \text{Rate}} = \frac{100}{100 + 2\frac{1}{2} \times \text{Rate}}$$

$$\therefore 8700 = 8000 + 80 \times 2\frac{1}{2} \times \text{Rate.}$$

$$700 = 200 \times \text{Rate.}$$

$$3\frac{1}{2} = \text{Rate.}$$

This problem can be much more easily solved by the following very useful principle which may be easily verified: The difference between the interest and the true discount of any sum for any time and rate is equal to the interest on the discount for the same time and rate.

∴ By the conditions of the problem,
 If \$80 = discount, \$87 = interest.

Then by the above principle,

\$7 = interest of \$80 for 2½ years.

∴ $\frac{7 \times 100}{80 \times 2\frac{1}{2}}$ interest on \$100 for 1 year.

\$3½ = rate.

(3) Resolve $x^4 - 81$ into factors.

$$x^4 - 81 = (x^2 - 9)(x^2 + 9) = (x - 3)(x + 3)(x^2 + 9).$$

(4) Resolve $(a+b)^2 - 11c(a+b) + 30c^2$ into factors.

By paragraph 96, page 52, Todhunter's algebra,

$$(a+b)^2 - 11c(a+b) + 30c^2 = \{(a+b) - 5c\} \{(a+b) - 6c\}$$

$$= (a+b-5c)(a+b-6c).$$

For a Subscriber, W. J. M.—(1) What number added to its square root will give 210?

Let x^2 = the required number.

$$x^2 + x = 210.$$

$$x^2 = 196.$$

(2) To find the area of an irregular heptagonal field.

Multiply the diagonals by the perpendiculars upon them and divide by 2.

N. S.—Can days lost during one quarter be made up on Saturdays of the following quarter?

They can for the first and third quarters, but not second or fourth.

For S. E. E., Kingston.—

Having given the lengths of the lines drawn from the angular points of a triangle to the middle points of the opposite sides, construct it.

The construction and proof of this exercise depends on the fact that these lines meet in a point which divides the lines into two parts, one part being twice the length of the other.

Let x, y, z be the given lines.

Make a triangle BOG with each of its sides = $\frac{2}{3}$ of the given lines respectively. Let OC and GC drawn parallel to BC and BG respectively meet in C. Produce GO to A, making CA = GO. Join BA and CA. Then ABC is the required triangle. Produce BO to cut AC in E, and CO to cut AB in D.

Then by the converse of example 1, page 66, because DC is parallel to BG and O is the middle point of AG; therefore D is the middle point of AB, also E is the middle point of AC; therefore AF, BE and DC are drawn to the middle points of the sides of the triangle ABC.

But the triangle BOC can be easily shown to be equal twice triangle EOC; therefore BC = 2 OE; therefore BE = x .

Similarly DC = y and AF = z .

For L. P., Macinqua.—

Hamblin Smith's arithmetic, page 259, Ex. 11.

$$21 + \text{Breadth} = \frac{5}{11} \times 2 \times 10\frac{1}{2} (21 + \text{Breadth}).$$

$$21 \times \text{Breadth} = \frac{5 \times 21 \times 21}{11} + \frac{5 \times 21 \times \text{Breadth}}{11}$$

$$\text{Breadth} = \frac{5 \times 21}{11} + \frac{5 \times \text{Breadth}}{11}$$

$$\frac{6 \times \text{Breadth}}{11} = \frac{105}{11}$$

$$6 \times \text{Breadth} = 105.$$

$$\text{Breadth} = 17\frac{1}{2}.$$

For S. M. B.—

(1) The sum of the squares of the segments of two perpendicular chords is equal to the square of the diameter of a circle. Let the chords AB and CD cut each other at right angles within a circle in the point O. The sum of the squares AO, OB, CO and OD = the square of the diameter.

Join AD and CB, also AC and BD. Make the angle DAE = angle CAB. Join DE.

Angle CAB = angle DAE, angle ACD = AED; therefore angle ADE is a right angle; therefore AE is the diameter, and DE = CB.

$$\therefore (AE)^2 = (AD)^2 + (DE)^2 = (AD)^2 + (CB)^2 = (AO)^2 + (OD)^2 + (CO)^2 + (BO)^2.$$

(2) If the side of an equilateral triangle equal a , find the altitude of the triangle in terms of a .

Let ABC be the equilateral triangle and AD the altitude.

$$\text{Then } BD = \frac{1}{2} AB, AB = a, BD = \frac{a}{2}$$

$$(AD)^2 = a^2 - \left(\frac{a}{2}\right)^2 = \frac{a^2}{4} \cdot 3$$

$$AD = \frac{a}{2} \sqrt{3}$$

(3) The radius of a circle inscribed in an equilateral triangle is equal to one-third of the altitude of the triangle. Draw straight lines from the centre of the inscribed circle and it can be easily shown that each of the triangles thus formed is equal to one-third of the equilateral triangle. But the altitude of one of these triangles is the radius of the inscribed circle. Therefore the radius equals one-third of the altitude of the equilateral triangle.

(4) The locus of the middle points of all chords of equal length in any circle is very easily shown to be another circle having the same centre and touching the chords.

SCHOOL AND COLLEGE.

During the month of October Inspector Meagher will visit the schools in the Parishes of Victoria County, N. B (except the Parish of Drummond, which he visited in September), commencing with those on the Tobique River.

Inspector Carter will be engaged with the schools of St. John and Kings County in the latter part of October, and expects to begin his inspection of St. John City schools early in November.

Inspector Mersereau will spend October in Restigouche County, November in Gloucester County, and December in those parts of Northumberland which remain unvisited this term.

Among the McGill scholarship winners in the Faculty of Arts is Miss Muriel B. Carr, of the Girls' High School, St. John, who passed the highest entrance and exhibition examination. The annual value of the scholarship is \$100 a year and free tuition. Sir Donald Smith is the donor.

The University of New Brunswick opens with a matriculating class of thirty-one—one of the largest in its history.

Miss Annie D. Robb, teacher at Musquash, St. John Co., has added a number of volumes to her excellent school library. The supply of apparatus has also been increased. Musquash has now a well equipped school.

Miss Allison M. White, teacher at Caithness, Charlotte County, has procured a fine school flag. The grounds surrounding this school are now among the neatest in the county.

Elmsville school, Charlotte County, now floats one of the largest flags in the county. The interior of the house has been entirely renovated; this, coupled with its fine exterior and beautiful grounds, renders it one of the most attractive in the county.

Miss Annie F. Johnston, lately teacher of the school at Levar Settlement, by means of a monster school picnic, provided her school with a very handsome flag. The house in this district is surpassed in appearance by few in the county.

Miss Maud Perkins, teacher last term at Sorrell Ridge, Charlotte County, added largely to her apparatus and furniture.

Miss Lottie E. Underhill, who holds a first-class license and has proved herself a very successful teacher, has temporarily taken charge of the school at Indiantown, Northumberland County, N. B.

The trustees of Bartholomew River District, Northumberland County, have engaged a teacher of the first-class, Miss Mina Andrew, of Campbellton.

Mr. Mason R. Benn, principal of the Douglstown, N. B., school, seems to be the right man in the right place. He has been here but one term and has already succeeded in inspiring his pupils and their parents with a pride in their school, which will insure its future success. He has also raised, by subscription, over seventy dollars for the school library.

The people of Whitneyville, Northumberland County, are rejoicing in the return of a former teacher, Miss Emma J. Dunphy. Her school is large—about seventy of an enrolment—and no class-room. The trustees are about to provide a class-room and employ an assistant—"a consummation devoutly to be wished." The school deteriorated very materially last term both in scholarship and discipline.

Mr. G. A. Cogswell, late of Port Williams, Kings Co., N. S., has gone to reside at Ithaca, N. Y.

The trustees of No. 13, South Esk, Northumberland Co., have secured the services of a teacher holding first-class—Miss Mary E. McBeath, Campbellton. This school has the reputation of being a very difficult one to manage, but Miss McBeath has won the good will of the pupils and has so far experienced no trouble in controlling them.

H. Johnson, Esq., B. A., left Bathurst, N. B., October 1st, to enter the senior class in Harvard. He was awarded a scholarship of the cash value of \$150 for the year. We have not heard who is to succeed Mr. Johnson in the Bathurst grammar school.

BOOK REVIEWS.

THE ROMAN PRONUNCIATION OF LATIN, by Frances E. Lord, Professor of Latin in Wellesley College. Price 40 cents; cloth; pp. 58. Publishers, Ginn & Co., Boston. This little work is a skilful and interesting attempt to show why we use the Roman pronunciation of Latin and how to use it, giving the chief authorities.

OBJECT LESSONS IN ELEMENTARY SCIENCE, by Vincent T. Murché. Vols. I, II and III. Price 2s. 6d., 3s. and 3s. 6d. respectively. Pages 295 and 378. Publishers, MacMillan & Co., London and New York. This is a scheme of object lessons in elementary science on a great variety of subjects—in physics, botany, zoology, mechanics, physiology, etc. They are admirably adapted for aiding the teacher in giving clear, concise lessons on topics and objects which enter into every day's teaching.

GEOMETRY IN THE GRAMMAR SCHOOLS.—An essay with Illustrative Class Exercises and an Outline of Work for the last Three Years of the Grammar School. By Paul H. Hanus, Assistant Professor of the History and Art of Teaching, Harvard University. Paper, 45 pages. Price 25 cents. D. C. Heath & Co., publishers, Boston. All instructors who are connected with the grammar school (corresponding to our higher advanced school) feel the necessity of adding to the value and increasing the interest in the instructions given in these schools. Geometry yields a peculiar and important kind of knowledge, and affords a highly desirable mental discipline. The question then arises, How shall the subject be taught? The pamphlet has been prepared with the intention of answering this important question. It indicates and discusses what portions of geometry should be selected for advanced school work, and develops very fully the way in which the teacher should present the subject. A number of illustrative class exercises are given, and an "outline of work in geometry for the last three years of the grammar school" is appended.

THE CHILDREN'S SECOND READER, by Ellen M. Cyr; Boards, pp. 136; price 40 cents. Ginn & Co., publishers, Boston. This is a beautiful little book, and in our primary schools would form an excellent supplementary reader. It introduces some of the simplest poems of Longfellow and Whittier, leading the child gradually to appreciate true poetry. The other stories are closely allied to nature work and child life, and these, with the illustrations and large type, give variety and beauty to the pages.

NATURE STORIES FOR YOUNG READERS: Animal life; by Florence Bass. Boards, pp. 172, price 35 cents. D. C. Heath & Co., publishers, Boston, Mass. The lessons contained in this little book aim to give in easy and interesting language illustrations of some of the varied means of self-protection employed by animals; their methods of building homes and caring for their young; the transformations they undergo; their adaptability to their surroundings and the "tools" with which the various animals are provided.

A TALE OF TWO CITIES, by Charles Dickens: Boards, pp. 447, price 70 cents. Publishers, Ginn & Co., Boston. The neat form, good binding and clear pages of Ginn's "Classics for Children" has made this series not only familiar, but attractive. The subject matter, too, is so excellent that this feature, combined with their cheapness, makes them very suitable for school libraries or private reading. "The Tale of Two Cities," prefaced with an introductory sketch of the life of Dickens, is the title of the work before us, and it forms an appropriate companion for the others of this series.

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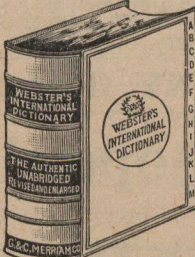
The October Magazines.

The opening article in the October number of *The Chau-tauquan* is full of interesting information on "the Development of Railroads in the United States," and is accompanied by numerous illustrations. John Ashton discusses pleasantly and with an occasional humorous turn, "Social Life in England in the Seventeenth Century." The composition of the British Parliament and the process of legislation is explained by Prof. Burgess, of Columbia College. Dr. Paul Carus contributes a scholarly article on "Science at the beginning of the Nineteenth Century".... In the *Popular Science Monthly* for October Mr. V. O'Shea has an instructive article on the "Professional Training of Teachers" according to modern ideas... The *Delineator* (Delineator Publishing Company, Toronto,) for November will be a thanks giving number. Among other articles, besides those attractive to the thanksgiving season, will be an article on Private School Teaching as an Occupation for Women.... Dr. Gennadius' article in October *Forum* (New York) points out the absurdities of the present method of teaching classical languages, especially Greek, and urgently advocates the teaching of it, not as a dead language, but as a living tongue as it is spoken and written in Greece to-day. He puts his case very convincingly.... There is no better aid to the acquirement of a sound literary taste than the continuous reading of the weekly issues of *Littell's Living Age* (Boston). Gleaning as it does from the richest literary field that exists; skilfully and carefully winnowing the wheat from the chaff, it makes the reader acquainted with the best specimens of English literature, and keeps him abreast of the times on all the many questions of public interest; the various phases and departments of science and art; biography and history; travel and discovery; in short on every subject that touches modern life or interests the cultivated mind.... Conspicuous among the contents of the *Atlantic* for

October is a timely paper entitled, "The Railway War," by Henry J. Fletcher, the author of a vigorous article on "American Railways and American Cities" in a previous issue. "The Railway War" is an excellent exposition of the lesson taught by the strikes of the past summer.... The most timely article in *The Century* for October is probably the interview with the Prime Minister of China in the concluding paper of the series "Across Asia on a Bicycle," which has the additional interest of being fully illustrated with half-tones after very unique photographs made by the bicyclers, Messrs. Allen & Sachtleben. A wood engraving of Li-Hung-Chang, from a photograph sent to the writers by the Prime Minister, accompanies the article.

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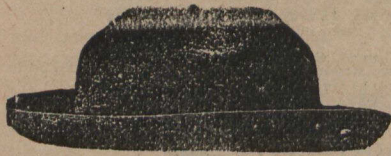
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