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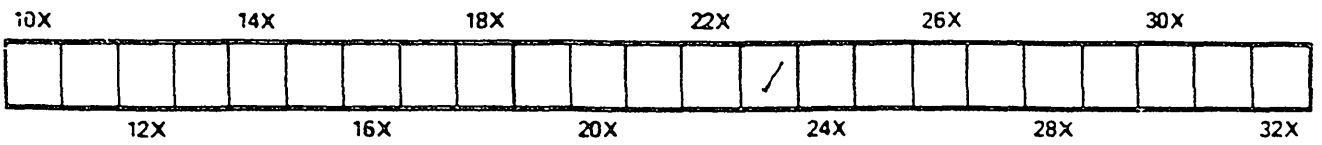

THE ONTARIO TEACHER:

A MONTHLY EDUCATIONAL JOURNAL.

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THE COUNCIL OF PUBLIC INSTRUCTION.

The abolition of the Council of Public Instruction was discussed at some length at the recent meeting of the Ontario Teachers' Association, and the following resolution was at last agreed upon: "That a Committee consisting of Messrs. McMurchy and Dawson of the High Schools, Alexander McAllister and Johnston of the Public School Teachers, and McCallum, McIntosh and Hughes of the Inspectors, be appointed to confer with the Minister of Education with a view to secure the establishment of a representative Board to advise with him on educational matters." Mr. Hughes, Inspector for the city of Toronto, in preparing the above resolution, referred to the causes which led to the dissolution of the Council of Public Instruction. It was quite evident that there could not be two executives—a Minister of Education and a Council. It was equally evident that the responsibilities of legislation and general management must rest somewhere, and that to hold a Minister responsible for legislation over which he had no control, would be a great injustice. We were never favorable to the abolition of the office of Chief Superintendent. While believing in the full responsibility of all rulers to a constituency of some kind or another, we rather liked the opportunity the Chief Superintendent enjoyed of standing out of the way of popular indignation, while the educational reforms he proposed to be enacted were working their beneficial effects upon the public.

With the abolition of the office of Superintendent, however, it is quite clear that the Council of Public Instruction must fall also. Its existence would be a legislative impossibility we felt, and we said so at the time, that the Public School teachers of the country, who through such anxiety and tribulation had elected their representative to the Council, and the Inspectors and High School Masters also, were treated rather cavalierly. But a short time previous they were asked to choose "good men and true" to sit and adjudicate upon the great interests of Provincial education; and then when their representatives were elected, when much remained to be done, that they were competent to do, the order was given to *abdicate*, and they were obliged to surrender their "brief authority," at discretion. The advice of a very important constituency was solicited, and when the constituents were in a position to tender that advice, their representatives were decapitated and a "king who knew not Joseph" reigned in their stead. The only connection now between the teachers and the legislature is the ordinary Parliamentary one. In no other way can they make themselves officially heard.

By the resolution at the head of this article, it is proposed to establish an Advisory Board—a sort of Oecumenical Council, who might *assist* the Minister of Education in the direction of school affairs. We have no great objection to this, if it is made *representative*. We have no objection to the Minister of Education being advised from any quarter. What we do want is, that when the responsibility of any course is charged upon the profession, the profession should be in a position to make itself fully heard. For instance, it is said that at present the Central Committee direct the Minister's judgment in regard to details. Whether this is so or not is of little consequence. The members of that Committee are quite competent to advise the Minister, but while admitting this we would most decidedly object to see the profession bound by their advice. Besides, as we said when advocating an elective Council of Public Instruction, it is desirable to frame legislation in such a way as to *provoke* the teachers to improve and elevate themselves. The expectation or the inducement of a seat on the Council—the certainty of promotion for services well and faithfully rendered, invariably acts as a stimulus, and to this end the legislation for the formation of the old Council of Public Instruction very evidently tended.

In a former issue we pointed out difficulties that might arise in the practical working of a Council having only *advisory* and not *executive* power, but a *representative* Council could and would carry the whole weight of the profession they represented, and of their responsibility to their constituents, and should this committee, appointed to consult the Minister with reference to an Advisory Board receive a favorable reply, we have no doubt but good might result. The endless details of school matters can only be mastered by men practically engaged as teachers, and it is to such, in some form or another, that the Minister must look. The Minister must be above restraint in his *actions*, but that does not mean that he is above *advice*. His own inability to determine what is best to be done, in many cases, will render it imperative to accept advice, and thus by the assistance of practical teachers, together with that forethought which has so far characterized the Hon. Mr. Crooks' actions, we have no doubt the new arrangement may be made tolerably effective for the promotion of the general interests of education.

THE CENTENNIAL AND ITS EDUCATIONAL FEATURES.

No. 2.

ONTARIO.

Before proceeding to speak of other countries, it may be inreresting to our readers to know what our own Province has done to place before the world an exhibit of her educational status and progress. As stated last month, the Ontario exhibit is in the main exhibition building, in the space allotted to this Province. An elegant arch forms the back-ground, having above and around it, the words "Educational Department, Ontario," and the coat of arms of the Department, with which all our readers are familiar. On the wall of the arch, on stands, and in cases in front of it, are the articles on exhibition. They embrace maps of various kinds; enlarged photographs of the principal school buildings in the Province; seats, desks, and other school furniture; models of school buildings; globes, and a great variety of philosophical apparatus; specimens of drawing, writing, &c. We can add our own testimony to that of many others as to the exceedingly creditable character of the exhibit. It is undoubtedly the best in the main building, and excepting the Pennsylvania exhibit, and the United States Government exhibit, the best on the grounds. This is saying a great deal, but numerous quotations might be made from Canadian and American journals corroborating our own opinion. The June No. of Ayer's *Advertiser's Guide* published at Philadelphia, in the course of a description of the educational exhibits at the Centennial says:

"Ontario makes decidedly the best exhibit in the Main Building. The arrangement is not made with reference to any system, but in its details is exceedingly fine. Several models of common and high schools are given. The scientific and mechanical instruments are of the most approved patterns, and from the work shown the natural conclusion is that the scholars know how to use them to the best advantage. A number of maps and pictures, drawn by scholars in the different schools, are very handsomely executed. The mineral and anatomical collections are also complete and attractive. A sectional puzzle-map of North America, made of wood, and neatly painted, attracts considerable attention, and must aid the little folks very materially in remembering the many divisions of the country. The public schools, judging from the models, are very neat and comfortable."

A gentleman occupying a very distinguished position as an educator in Ontario, recently visited the Centennial, and thus gives his impressions in the *Globe*:

"The Canadian newspapers on both sides of politics, and the newspapers of the United States as well, have concurred in expressing admiration of the noble place at the Centennial Expositon taken by the Department of Education for Ontario. The testimony I have to give on this subject is an accordance with that of every other observer.

"The excellence of the Educational Exposition from Ontario is all the more striking from the contrast presented by the Expositions from other Canadian Provinces. The display from Nova Scotia is utterly insignificant; that from Quebec ditto. * *

"It is a relief to turn from such abortions to the Department of Education for Ontario. It has for its background an elegant arch—the conception, I believe, of Dr. May. On the wall of the arch, in the open space in front of it, and in a number of glass cases, we have the articles connected with Education contributed by our Province. In quantity they are sufficiently abundant. They have the variety necessary for exhibiting the material instruments adapted for instruction in the different branches taught in our schools, from the most elementary forms up to the highest classes of science. They are of a style and quality which, taken in connection with the prices at which it appears that they can be

purchased, called forth in my hearing expressions of wonder from teachers who were present from various parts of the United States. Finally, the articles have been admirably arranged. In other parts of the building, cases are to be met with containing contributions which have been crowded together within the cases on no principle of arrangement which the mind can conceive. The articles look as though they had found their several positions by fortuitous concourse. It is otherwise in the Ontario Department. There a plan has been carried out, and well carried out. I am of opinion that, for real value, our Educational display has not been surpassed, if it has been equalled—by anything else in the Exposition.

"To those who pass through the Centennial Buildings giving merely a superficial glance at the objects around them, the statement which I have just made may possibly appear extravagant and exaggerated. It may be necessay, therefore, to explain more fully what I mean.

"The contributions furnished to the Centennial Exposition by the Education Department of Ontario have been made on an entirely different principle from that which has determined the contributions made by the different States of the American Union. I will take the State of Pennsylvania as a type of the others. In its educational exposition it stands, as might be expected, at the head of all the States. To show the efforts that were put forth to render its exposition as perfect as possible, it is enough to mention that the building in which its contributions are set forth is said to have cost about $22,000. And through the zeal and ability of the Hon. J. P. Wickersham, State Superintendent of Education, the building is worthily filled. But filled with what? Mainly with specimens of school work. Volumes on volumes of answers, by pupils belonging to different schools in the State of Pennsylvania, to questions in grammar, in composition, in arithmetic, in algebra, in geometry, in drawing, in music, and in other subjects taught in the schools, load the tables. The papers, exactly as they were written by the pupils in the public examination-rooms, have been bound up, and are submitted for inspection. In like manner the walls are crowded with maps drawn by the pupils. Articles of needlework, and other products of female industry, are set forth. And it cannot be denied that all this is in perfect accordance with the general idea of the Centennial, which was to be an exposition of the products of the labor of the world. What are the products of school labor? Of course, the best of them do not admit of being presented to the eye or grasped in the hand; but those which can be so presented or grasped are exactly what we meet with in the Pennsylvania Department. The Ontario collection has been made on quite a different principle. It does contain a very few specimens of school work, chiefly in the form of maps drawn by pupils; but it is mainly an exposition of the material instruments of school instruction. For instance, some admirable physiological models are shown. Some admirable specimens of maps, exhibiting in relief the physical conformation of countries, are shown. Some miniature chemical laboratories, with the substances necessary for the performance of an extensive series of experiments in elementary chemistry, are shown. And so forth. Now, while the idea which has given to the various educational departments of the United States the form that they display is perhaps more in harmony with the general idea of the Centennial Exposition than that which has determined the very different form of the Educational Department for Ontario, I cannot but think that, for practical educational purposes, the Ontario collection is more valuable than that of any of the United States, Pennsylvania not excluded. It is not necessary for me to give the reasons for this opinion; they will readily suggest themselves to the minds of your readers."

UNITED STATES.

We have already expressed the opinion that the educational exhibits of various countries at the Centennial are far from being what they should be, and while the United States has done more to give an exhibit of what the country is and does, from an educational point of view, than any other nation, it must be evident to any impartial observer that even here the ex-

hibit is far from being equal to those in other departments. We speak now of the American exhibit as a whole, and not of what has been done by individual States. Here the lack of a separate building specially devoted to education, is most sensibly felt. The exhibits are scattered, disconnected, and lack system and organization. To show that this is not our opinion alone we quote from the *National Teacher*, one of the best of the American educational magazines :

" Our readers may like to know our opinion of our Educational Exhibit at Philadelphia. We are frank to say that as a National Exhibit it is a failure. By this we do not mean to say that there is not anything of which we may be proud, but that the whole thing is disjointed. If the leading educators and statesmen, national, and State, had fully realized the situation there would have been a grand educational building in which might have been displayed in a classified way with territorial subordination a creditable exhibit of our educational advancement so far as such exhibit could be made in a material way. We briefly intimate what might have been done. The space should have been allotted first by subjects and then subdivided by States and Territories." And again ; " The Pennsylvania building costing $13,000, owes its existence to the energy of the Hon. J. P. Wickersham, to whom we tender the heartfelt thanks of the educators of the country for doing so much to diminish the blush of shame on Columbia's cheek, arising from our ill-organized educational exhibit."

The lack has, however, been to a large extent supplemented by the National Government. In the United States Government building the Department of the Interior have arranged an exhibit which is very good as far as it goes, and in many respects highly creditable. The order, system, and completeness of this exhibit, are mainly due to the good management of the obliging and indefatigable Commissioner of Education, General John Eaton. Though pressed with other engagements, he kindly accompanied us through the national exhibit, explaining its various features, and giving a better idea of it than we could otherwise obtain. On maps specially prepared, is represented the prevalance of illiteracy and enlightenment in the United States. Other maps represent the area of lands granted in the various states for the support of education. The number and location of universities, colleges, normal schools, asylums, &c., are also shown on maps. A little further on we find an exhibit of what has been done for the education of the aborignies of the country. Here are models of Indian school-houses and churches, Indian portraits, Indian work, specimens of work by educated Modocs, &c. Next we come to an extensive collection of portraits of eminent educators, and illustrations of the principal educational buildings throughout the Union A large space is occupied by the plans, maps, and drawings of the American Topographical survey. There is a large and interesting collection of school books from the oldest used in the country down to those in use at the present time, and a collection of catalogues of public libraries, colleges, and universities. There is an interesting exhibit of modelling in clay and of the various uses to which it can be applied, and close by a representation of the deaf and dumb institutions of the Union, and their various systems of instruction. There is also a very instructive exhibit of the educational progress of the country as represented in the progress of its school buildings, by models of the pioneer school house, rougly constructed of logs, with its chimney of cross sticks, and of its successors increasing in comfort and beauty, till we come to the costly and elegant High School, and the ornate and massive university.

Through the kindness of General Eaton we obtained copy of the report of the Commissioner of Education for 1874, a volume of 935 pages. We may remark

here that each State and Territory has entire control of its own education, and is not subject to any control by the National Government. Not only is each State and Territorial Government entirely untrammelled in this respect, but there is no provision in the constitution by which any of them can be compelled to furnish any information to the general government. It follows that statistics collected by the Commissioner at Washington, and embodied in his annual reports, are furnished voluntarily. The importance of collecting, tabulating, and issuing annually statistics by which the educational progress of the Republic as a whole, might be guaged, was wisely recognized by Congress, and we have now before us the fifth Annual Report of the Commissioner. The sources of material are thus enumerated: (1.) All educational information printed by authority, either in the form of catalogues or reports, or educational journals; (2) the returns made directly to the office by the State or city educational officials, or by the principals of schools, colleges, &c.; (3). other communications made directly to the office by teachers and officers of systems or institutions of education. The statistics compiled from these sources seem to be very complete, and the observations made by the Commissioner are of great practical value. Such a volume published annually, and widely circulated, can not but act as a powerful stimulus, both by pointing out defects, and indicating the pathway along which the Republic as a whole may advance to a higher plane of educational excellence. For obvious reasons we refrain from making any extracts, and can only quote a very few of the statistics furnished. We learn that the total children of school age, (this varies somewhat in different States,) in the States and Territories of the Union in 1874 was 13,875,050. The number enrolled in the Public Schools was 8,099,981. The average daily attendance was 4,521,564. The total number teachers employed in the public schools was 241,300. The average salaries for the whole Union are not given, but they range from $32 per month in Virginia, to $94 per month in Massachusetts, and $113 per month in the District of Columbia. Teachers among the Cherokee nation get the best salaries, the average being for males $225 per month, and for females $200 per month. So far as can be ascertained the total income for public school purposes in the Union in 1874 was $82,158,905. Of this $15,045,908 was expended for sites, building and furniture, $924,773 for salaries of superintendents, and $46,703,296 for salaries of teachers. There were in the Union in 1874 124 normal schools with 966 teachers, and 24,405 pupils; 126 business colleges, with 577 teachers and 25,892 pupils; 1031 academies, with 5466 teachers and 98,179 pupils; 209 colleges for women with 2,285 teachers and 23445 pupils; 343 colleges with 3,783 teachers and 56,692 pupils; 140 theological, medical and law schools, with 1881 teachers and 16,036 pupils, and 55 Kindergartens with 125 teachers and 1,636 pupils. There were in the Union in 1874,336 public libraries with 4,663,160 volumes of books, and 764,944 pamphlets. There were 40 institutions for the deaf and dumb with 275 instructors, and 4,900 inmates; 29 schools for the blind with 1,942 pupils; 56 reform schools with 9,846 pupils. Statistics to which we may refer in a future issue, are given to show the connection between ignorance and crime, the number of orphan asylums, educational publications, and a list of educational benefactions. In no country in the world have such large sums been donated by private individuals to the support of education. The total amount so given to the various classes of institutions in the Union up to 1874. was the magnificent sum of $6,053,304.

(To be continued.)

ANCIENT HISTORY.

QUESTIONS AND ANSWERS, BY W. R. BIGG, ESQ., INSPECTOR OF PUBLIC SCHOOLS, FIRST DIVISION OF LEEDS.

(Q.) No. 1. What period of time is embraced in the term Ancient History?

(A.) From the Creation B.C. 4004, to the fall of the Western Roman Empire, A. D. 476.

(Q.) No. 2. Name the subdivisions of the Ancient History Period and the time allotted to each?

(A.) 1st. The Antediluvian, from the Creation B.C. 4004, to the Deluge B. C. 2348.

2nd. The Heroic, from the Deluge B.C. 2348, to the First Olympiad B.C. 776, commencing with the establishment of the earliest empires and most ancient cities, and including the fabulous ages of Greece.

3rd. The Historic, from the First Olympiad B.C. 776, to the fall of Carthage B.C. 146, comprising the legislative eras of Lycurgus and Solon, the rise and fall of the Persian monarchy, and the earliest part of Roman History, to the end of the Punic wars.

4th. The Roman, from the fall of Carthage B.C. 146, to the fall of the Western Roman Empire A. D. 476.

(Q.) 3. Name the three different races of mankind, and the ancestor of each, specifying the various nations belonging to each race?

(A.) 1st. JAPHET, the parent of the White or Caucasian race, comprising the Arabs, Egyptians, Abyssinians, Indians, Pelasgians, Germans, Turks, Hungarians and Finns.

2nd. SHEM, the parent of the Tawny, Olive, or Mongolian race, comprising the Mantchoos, Chinese, Laplanders, Samoeids, Esquimaux, Malays, Oceanians, and Americans.

3rd. HAM, the father of the Black, or Negro races, comprising the Ethiopians, Caffres and Hottentots.

(Q.) 4. Name the three primeval languages, and the dialects springing from each?

1st. The Arabic, or Chaldee, from which spring the dialects used by the Assyrians, Arabs, and Jews.

2nd. The Sanscrit, from which are derived the Greek, Latin, Celtic, Persian, Armenian and Old Egyptian dialects.

3rd. The Sclavonic or Tartarian, from which spring the various dialects of Northern Asia, and Northeastern Europe.

(Q.) 5. What are the principal divisions of languages at the present time, and by whom spoken?

(A.) 1st. The Japhetic or Aryan, spoken from the Ganges to the Thames, and over nearly all America.

2nd. The Semitic tongues, belonging chiefly to the basin of the Euphrates and Tigris, Syria and Arabia.

(Q.) 6. Name the most prominent nations in Ancient History?

(A.) Egyptian, Phœnician, Jewish, Assyrian, Babylonian, Persian, Grecian, and Roman.

(Q) 7. By whom were Babylon and Nineveh founded, and when; mention also whom the latter city was named after?

(A.) Babylon was founded by Nimrod or Belus, B.C. 2247, and Nineveh by Ashur, B. C. 2234, but named after his successor Ninus.

(Q.) 8. Who is regarded as the first King of Egypt?

(A.) Menes, B.C. 2188, when the previous sacerdotal form of government was changed into the monarchical.

(Q.) 9. In what part of Egypt, and near what city are the pyramids, and to whom

is ascribed the construction of the loftiest ?

(A.) In Middle Egypt, near Memphis: Each side of the base of the great pyramid, multiplied by 500, produces a geographical degree. Its construction is credited to Cheops.

(Q). 10. Name the chief city in Upper Egypt, and state what celebrated structure was in its vicinity ?

(A.) Thebes with its hundred gates, situated on both banks of the Nile. The memnonium or palace of the kings.

(Q.) 11. Mention the main doctrine of the Egyptian religion, and the names of animals to whom divine honors were paid?

(A). The transmigration of souls.—The ox, dog, cat, ibis, hawk, and the bull Apis.

(Q.) 12. In what arts and sciences did the Ancient Egyptians excel ?

(A.) Architecture, Sculpture, Painting, Geometry, Astronomy, and in the manufacture of Glass and Paper, and in Purple Dyeing.

(Q.) 13. In whose reign did the Hycsos, or Shepherd Kings invade and conquer Egypt, and how long did they reign over the Kingdom ?

(A.) In the reign of Timaus, B.C. 2084 —they governed for about 500 years.

(Q) 14. What city in Greece was founded about the time of the invasion of the Shepherd Kings. Give the date and name of its founder ?

(A.) Sicyon, founded by Egialeus, B. C. 2089.

(Q) 15. What Assyrian monarch was contemporaneous with Abraham. Give the date, and also the name of his Queen ?

(A.) Ninus, B.C. 1968.—Semiramis.

(Q.) 16. When, and by whom was the kingdom of Argos founded ?

(A.) In B.C. 1856, by Inachus.

(Q.) 17. What people settled in Egypt, about the time of the expulsion of the Shepherd Kings ?

(A.) The Israelites under Joseph, B.C. 1706, when the history of the Jews first comes in contact with that of Egypt.

(Q.) 18. State the different forms of Government that prevailed among the Jews.

(A.) Patriarchial from the Creation, B.C. 4004 to the Exodus B.C. 1491—Theocratic under Moses and Joshua B.C. 1491 to B.C. 1443—Under Judges, to the anointing of Saul B.C. 1443, to B. C. 1095—Monarchical from B. C. 1095 to B.C. 975, when ten of the tribes revolted after the death of Solomon, and formed the Kingdom of Israel, which had 19 kings and lasted 254 years. The remaining two tribes—Judah and Benjamin — formed the Kingdom of Judah, which had 20 kings, and lasted 388 years.

(Q.) 19. Whence did Palestine derive its name—define its limits, and various divisions at different epochs ?

(A.) The land of Canaan, was subsequently called Palestine, because the sea coast to southward was in possession of the Philistines ; it was also called Judea, from Judah the chief tribe of the Israelites ; and also the Holy Land—the Promised Land.

The limits of the country varied at different times, but generally speaking its greatest length was nearly 200 miles, and breadth 100 miles.

When Joshua took possession of it, he divided it among the twelve tribes of Israel, viz: Reuben, Simeon, Judah, Issachar, Zebulon, Manasseh, Ephraim, Benjamin, Dan, Naphtali, Gad and Asher.

It was afterwards divided into the two kingdoms of Judah and Israel ; and lastly, by the Romans, into four provinces or districts, viz : Galilee, Samaria, Judea proper, and Peræa or the country beyond the Jordan.

(Q.) 20. Who were the first inhabitants of Greece, and whence came they. ?

(A.) The Pelasgi, Leleges, and other barbarous tribes, who migrated from Asia through Thrace and Thessaly.

(Q) 21. Name the principal colonies founded in Greece, with the names of their founders?

(A.) Cecrops, at the head of an Egyptian colony, settled in Attica; Danaus, another Egyptian, from whom the Greeks were called Danai, in Argos; Cadmus the Phœnician, who introduced alphabetic writing into Greece, in Bœotia; and Pelops a Phrygian prince, in Peloponnesus, to which he gave his name.

(Q.) 22. Where are the "Catacombs," and the statue of Memnon, and for what noted?

(A.) A plain, not far from Memnonium, bears the name of the "region of the colossuses"; from the number of colossal statues with which it is covered, partly standing upright, partly overturned, and partly broken to pieces. The largest of them are 56 feet high, one of which is the celebrated statue of Memnon, which was believed in ancient times to give forth a shrill sound every morning at sunrise. Adjacent to these are the "Catacombs of Egypt," destined for all classes of the people, far surpassed however in magnitude and splendor, by the sepulchres of the kings, which are situated in a separate and dismal place.

(Q.) 23. When did Cecrops become King of Athens, and what celebrated court of justice did he institute—name a contemporary Jewish lawgiver?

(A.) B.C. 1556; the Areopagus; Moses B.C. 1571.

(Q.) 24. Give the date of the deluge of Ogyges, and also that of Deucalion?

(A). The former B.C. 1797; the latter B. C. 1529.

(Q) 25. Who established the Amphictyonic Council, of what did it consist, where did they meet, and what was its object?

(A.) Amphictyon, the son of Deucalion; it consisted of a union among the various states of Greece, whose deputies met in the spring, at Delphi, and in the autumn at Thermopylæ, for the purpose of protecting their general interests, and guarding against foreign aggression. The ordinary duties of the deputies were connected with religion, and its main functions were to guard the temple of Delphi, and to restrain mutual violence among the states belonging to the league.

(Q.) 26. Mention the most celebrated exertion of authority on the part of the Amphictyonic Council?

(A.) The inhabitants of Crissa were charged with extortion and violence, towards strangers proceeding through their territory to Delphi; the Council therefore, declared war against the town, and hostilities were protracted for ten years, until B.C. 585, when Crissa was taken, and razed to the ground, principally by the advice of Solon.

(Q.) 27. What Egyptian king is probably the same as the legendary Sesostris of the Greeks, and what places were conquered by him?

(A.) Rameses, the Great; he conquered Libya, Ethiopia, Media, Persia, Bactria, Scythia, and Asia Minor.

(Q.) 28. What religious festival in honor of Minerva, was established by Theseus?

(A.) The Panathenæa, (a common religious festival.)

(Q) 29. Mention the four chief dialects of Greece?

(A.) The Attic, Doric, Ionic, and Æolic.

(Q.) 30. For what were the Phœnicians noted, in what arts did they excel; mention their oldest city, and also their most powerful one?

(A.) For their knowledge of navigation and manufactures; they excelled in the manufacture of glass, and in the art of purple dyeing; they also invented alphabetic characters. The oldest city was Sidon, and the chief and most powerful was Tyre.

(Q.) 31. Give the dates of the founda-

tion of the following cities, with the names of their founders ; Sparta, Athens, Thebes, Corinth and Troy ?

(A.) Sparta, B.C. 1104 ; Athens, B.C. 1556 ; Thebes, B.C. 1493 ; Corinth, B.C. 1520 ; Troy, B.C. 1546 ; the names of the respective founders are Heracleids, Cecrops, Cadmus, Sisyphus, Dardanus, and Scamander.

(Q.) 32. In what manner did the Greek mythology trace the four tribes, into which the Greek nation was divided, viz : the Dorians, Ionians, Achæans, and Æolians ?

(A.) To the four descendants of Hellen, the son of Deucalion, viz : from his two sons Dorus and Æolus, and from his two grandsons Ion and Achæus, who were the sons of Xuthus.

(Q.) 33. Mention the chief authors and poets, who wrote either in the Attic, Doric, Ionic, or Æolic dialect ?

(A.) *Attic*—Thucydides, the tragic poets, Aristophanes, Lycias, Plato, Xenophon, Æschines, Demosthenes, Isocrates, and Menander.

Doric—Epicharmus, Sophron, Bion, Moschus, Callimachus, Pindar, and Theocritus.

Ionic—Homer, Hesiod, Anacreon, Herodotus, and Hippocrates.

Æolic—Alcæus, Sappho, and Corinna.

(Q.) 34. Mention the first legislator of the Cretans whose laws are supposed to have been adopted by Lycurgus, in framing the Spartan constitution ?

(A.) Minos, B.C. 1431.

(Q.) 35. In whose reign was the Labyrinth of Crete constructed, and by whom ; what was it used for ?

(A.) In the reign of Minos II., a contemporary of Theseus, by the architect Dedalus. It was used as a prison for the Athenian hostages, and for the Minotaur, a fabulous animal, half-man half-bull, said to have been slain by Theseus.

(Q.) 36. Narrate the particulars of the Argonautic expedition ?

(A.) A company of knight-errants, consisting of Castor, Pollux, Orpheus, Peleus, Hercules, and Laertes, under the guidance of the Thessalian Jason, braved the dangers of the Symplegades, and the tempests of the Euxine, in search of the "golden fleece," according to the poets, but commercial enterprise, or predatory warfare seems to have been its real object, as they carried off Medea, the daughter of the King of Colchis, B.C. 1263.

(Q.) 37. Name the first and last king of Troy, in order ?

(A.) Teucer—Priam.

(Q.) 38. Narrate the events that led to the Trojan war, giving the result, and dates ?

(A.) Paris, the son of Priam, King of Troy, eloped with Helen the wife of Menelaus King of Sparta, and the Trojans refused to surrender her, when requested. Menelaus roused all Greece to arms to avenge his wrongs, and a fleet of 1200 ships set out for Troy, the supreme command of the expedition being confided to Agamemnon, King of Mycenæ. After a ten years' siege, Troy was plundered and burnt, B. C. 1184. Achilles and Hector were the chief champions.

(Q.) 39. Who were the Heraclidæ, and in what part of Greece did they eventually settle, on their return from Troy ?

(A.) The descendants of Hercules or Heracles, who thought the Peloponnesus better fitted for the re-establishment of their power ; they succeeded, with the assistance of the Dorians, Ætolians, and Locrians, in dispossessing the Peloponnesians B. C. 1104.

(Q.) 40. Give the name. and date of the last King of Athens, and state what form of government was subsequently introduced, and the changes it afterwards underwent ?

(A.) Codrus, B.C. 1095, on whose death, the regal title was abolished, and his son, Medon was elected first Archon for life ; after twelve archonships, ending with that of Alcmæon B.C. 752, the duration of

the office was limited to 10 years, though still held by the descendants of Medon. In B.C. 683 the term of the Archonship was reduced to a single year, and the power distributed among nine Archons; of these the first was called "The Archon"; the second, "The King Archon"; the third, "The Polemarch"; and the remaining six, "Thesmothetæ."

(Q.) 41. Name the principal Grecian colonies, and by whom founded?

(A.) Lesbos, Cuma, Smyrna, and Mitylene, by Æolians.

Colphon, Ephesus, Miletus, Cyclades, Clazomenæe, Phoeæa, Chios, Samos. and Delos, by Ionians.

Cnidus, Halicarnassus, Crete, Rhodes, Cos Tarentum, Locri, and Himera, by Dorians.

Messana, Syracuse, Corcyra, and Camarina, by Corinthians.

Naxos, Catana, Rhegium, Messene, and Leontini, by Chalcidians.

Byzantium, Hybla, and Selimus, by Megarians.

Gela, Acragas, and Agrigentum, by Cretans and Rhodians.

Abdera, Amphipolis, and Olynthus, by Athenians and Corinthians.

Massilia (Marseilles), and Emporice, by Phoceans.

(Q.) 42. Under whose direction was Tadmor in the wilderness built, and by what name was it subsequently known?

(A.) Built by Solomon; afterwards it was called Palmyra.

(Q.) 43. State briefly the particulars relative to the building of the first, second, and third Temple at Jerusalem?

(A.) The first temple was built in 7½ years by Solomon, B.C. 1004, and is stated to have cost 230 millions of pounds. It was destroyed by Nebuchadnezzar, B. C. 588.

The second temple was rebuilt by Zerubbabel, B.C. 515, and plundered and burnt by Antiochus, B.C. 167, and purified, B.C. 164.

The third temple was restored by Herod the Great, B.C. 8, and burnt by Titus A.D. 70.

(Q.) 44. When did Homer and Hesiod flourish, and state how many and what cities contended for the honor of the birth of the former? Give the birthplace of the latter?

(A.) About B.C. 886. Seven cities contended for it, viz: Smyrna, Chios, Rhodes, Colophon, Salamis, Argos, and Athens.

Hesiod was born in Ascra in Boetia.

(Q.) 45. What incidents do the Iliad and the Odyssey affect to relate?

(A.) The Iliad so called because the subject of it is the destruction of Ilium or Troy; the Odyssey contains the adventures of Ulysses on his return from the Trojan war.

(Q.) 46. Who first rendered Syria a powerful kingdom, and by whom was it overthrown? Give the dates?

(A). Benhadad I., rendered the kingdom powerful B.C. 940; it was finally subjugated by Tiglath-Pileser, B.C. 740.

(Q) 47. Which of the Grecian States rose first to eminence, and to what was its military supremacy owing?

(A) Sparta—its military superiority was owing to the effects produced by the celebrated laws of Lycurgus, B.C. 884, which continued in force for about 500 years.

(Q) 48. Sketch briefly the constitution of Sparta, under the laws of Lycurgus?

(A) Two kings governed conjointly, while five Ephori, and twenty-eight senators, held the balance between them and the people. All the lands were divided into equal portions: 9,000 shares were assigned to the Spartans, and 30,000 to the Laconians, the whole being cultivated by the Helots. The only coins were of iron. The Spartans fed at a common table; the children were the property of the state; those who were born deformed were not

permitted to live. The boys were trained to a taste for war, contempt of death, obedience and the practice of the austerer virtues; they went bare-footed, and throughout the year wore only a single garment; theft was encouraged, that the youths might become fitted for the stratagems of war, and when detected they were severely punished for their clumsiness; their education finished at 20; they committed to memory a few patriotic songs and learned to express themselves laconically.

(Q) 49. Who were the Helots?

(A) The inhabitants of Helos reduced to slavery as a punishment for their continual insurrections.

(Q) 50. When and by whom was Carthage founded? Name its mother country, and the principal features of its religion?

(A) By Elisa, or Dido, sister of Pygmalion, king of Tyre, B.C. 869. The mother country was Phœnicia. The heavenly bodies were worshipped, and the blood-stained rites of Moloch held in great honor.

(Q) 51. For what was Carthage noted, what countries were held by the Carthaginians, and what city was its rival?

(A) Carthage was pre-eminently a commercial city; the Carthaginians held Sicily; Malta, the Balearic Isles, Sardinia, and Corsica, and part of the south-west coast of Spain. It was long the powerful rival of Rome.

(Q) 52. By whom and when was Macedonia founded, and when did it become a Grecian state?

(A) This was a Hellenic colony from Argos, founded by Caranus, B.C. 814, who settled in Emathia. It became a Grecian state during the reign of Philip, the father of Alexander the Great.

(Q) 53. Where was the temple and statue of Moloch, and from what did it derive its name of Tophet?

(A) In the valley of Hinnom, at the foot of Mount Sion; the place derived its name of Tophet from the musical instruments (tuph), used to drown the cries of the children who were sacrificed.

(Q) 54. Name the four most celebrated of the public games of Greece; where were they held? Give the date of the First Olympiad, and state also in what the games consisted, and what was the prize?

(A) The Nemean, held in Argolis; the Isthmian, in Corinth; the Pythian, at Delphi; and the Olympic at Olympia. The First Olympiad begins with July 776 B.C. The games consisted of foot-races, wrestling, leaping, throwing the quoit, and javelin, boxing, horse and chariot racing, and gymnastic exercises, combined with readings and harangues. The prize was a simple wreath of laurel, or of olive, and its value was enhanced by being awarded in presence of the whole Greek nation, and by the subsequent honors paid to the victor by his native city.

(Q) 55. In what relation did Babylon and Media, originally stand to Nineveh, and when, and under whom did they revolt? State the result?

(A) They were Provinces of Nineveh, and governed by Viceroys; they conspired simultaneously against the mother country during the reign of Sardanapalus, B.C. 820, the former under Belesis, Governor of Babylon, and the latter under Arbaces, Governor of Media; the revolution was successful, and Babylon and Media became independent kingdoms.

(Q) 56. Who subsequently rendered Assyria a powerful kingdom? Give the date.

(A) Pul or Phul, B.C. 771.

(Q) 57. What additions did Tiglath-Pileser make to the empire, and by whom was he succeeded?

(A) He conquuered Syria, B.C. 740. He was succeeded by Shalmaneser.

(Q) 58. Sketch briefly the events that occurred during the reign of Shalmaneser or Salmanassar.

(A) He invaded Israel and took Samaria,

and having completed the conquest of the kingdom, led Hosea, and the ten tribes into captivity, B.C. 721 ; he also reduced Phœnicia, and compelled tribute.

(Q) 59. In whose reign, and when, was Babylon re-annexed to the Assyrian Empire, and what places did he conquer ?

(A) In the reign of Esarhaddon or Assarhaddon. the son of Sennacherib, B.C. 680. He conquered Palestine, Syria, Egypt and Ethiopia.

(Q) 60. Under what Viceroy did Babylon again become independent, and when ?

(A) Under Nabopolassar, B.C. 647.

(Q) 61. Sketch the events that led to the destruction of the Assyrian Empire ?

(A) Nabopolassar, King of Babylon, allied himself with Cyaxares, King of Media, and the confederate kings took, and destroyed Nineveh, B.C. 612, its last king being Saracus, (Chynaladanus) the son of Saosduchinus, the Nabuchodonosar of the book of Judith.

(Q) 62. Who were the Lydians, and what were they originally called, and where was the kingdom situated ?

(A) They were a Pelasgian race, originally called Mœonians, from their first monarch Mœon, B.C. 1545. It was situated in Asia Minor, between the Hermus and the Meander.

(Q) 63. Name the last King of Lydia. For what was he celebrated, what two eminent individuals were entertained by him, and who subjugated his kingdom ?

(A) Crœsus, celebrated for his great wealth ; he entertained at his court, Solon, the Philosopher, and the fabulist Æsop, B.C. 575. The kingdom was conquered by Cyrus the Great, B.C. 546, who united the Median and Persian monarchies.

(Q) 64. Name the leading tribes, that settled in Italy, and state which one was the primitive source of the Latin people.

(A) The Umbrians, Siculans, Casci, Sabines, Etruscans, and Japygians ; the Casci ultimately became sole masters of the country, and were called Latins from their king Latinus, whose daughter Lavinia, Æneas is said to have married.

(Q) 65. Name tha original Italian languages, that prevailed ?

(A) The Japygian, Etruscan, and the Italian proper, *i.e.* the Latin.

(Q) 66. Name the chief town of the thirty, that formed the Latium confedracy ?

(A) Alba Longa, said to have been built by Ascanius the son of Æneas.

(Q) 67. Where was the city of Rome situated, and by whom, and when, was it said to have been founded ?

(A) On the Palatine hill on the Tiber, 20 miles from its mouth ; it was founded by Romulus, B.C. 753.

(Q) 68. Give the names and dates of the seven kings of Rome, mentioning any events occurring in the reign of each, as well as the names of any contemporaneous monarchs.

(A) 1st. Romulus, B.C. 753; he divided the people into three tribes, Ramnes or Romans, Tities or Sabines, and the Luceres probably the Etruscans ; the people were also divided into two classes, Patricians and Plebeians ; Romulus incorporated the Sabines and Romans by seizing on the Sabine virgins, B.C. 751.

Tiglath-Pileser, king of Assyria was contemporaneous.

2nd. Numa Pompilius, B.C. 715 ; he established the priesthood, and the religious ceremonies, and regulated the Calendar by the institution of a lunar year of 355 days ; he also built the temple of Janus, which remained closed during his reign, a sign that Rome was not at war with any nation.

Contemporaneous monarch, Sennacherib, King of Assyria.

3rd. Tullus Hostilius, B.C. 672. Alba Longa and Rome being at war it was agreed that the dispute shonld be settled by a combat between the three Roman brothers, Horatii, and the three Alban brothers, Curiatii, and

that the victors should reign over the vanquished; the Romans were victorious, B.C. 667, and the Albans were subsequently tranferred to Rome.

Manasseh, King of Judah was contemporaneous.

4th. Ancus Martius, B.C. 640; he extended the dominion of Rome to the mouth of the Tiber, where he built Ostia, the port-town of Rome, and established salt works.

Josiah, King of Judah was contemporary.

5th. Tarquinius Priscus, B.C. 616; he built the Capitoline temple, subjugated the Latins, and executed great and useful architectural works, as the "Great Sewer," (cloaca maxima), and the "Great Circus," (circus maximus).

Pharaoh Necho, King of Egypt was contemporaneous.

6th. Servius Tullius, B.C. 578; he organized the plebeians, effected political reforms, and surrounded the city with a stone wall.

Contemporary, Nebuchadnezzar King of Babylon.

7th. Tarquinius Superbus, B.C. 534; he is said to have coined the first brass, and marked it with the figure of some animal, whence the name "pecunia" for money. The unbridled passions of his son Sextus caused the expulsion of the Dynasty, and the abolition of the kingly power.

About the same time, B.C. 509, the Pisistratidæ were driven from Athens. Darius Hystaspes, B.C. 505, was contemporaneous.

(Q) 69. Give the particulars relative to the dimensions of the walls and towers of Babylon, together with its means of defence?

(A) The walls were built of bricks, cemented with bitumen, and were 350 feet high, 87 feet thick, and 60 miles in circumference, and where these walls were not surrounded by marshes, they were defended by towers filled with armed men. There were 250 towers, and the city was provisioned for twenty years, besides having a large extent of ground within the walls appropriated for tillage and pasture.

(Q) 70. Under whom did Babylon rise into importance, and what name is given to the period?

(A) Nabonassar. Era of Nabonassar, B.C. 747.

(Q) 71. Under what monarch did Babylon attain its greatest significance, and what places did he conquer?

(A) In the reign of Nebuchadnezzar, the son of Nabopolassar; he conquered Egypt and Phœnicia, destroyed Tyre, B.C, 586, and carried the Jews captive to Babylon, B.C. 588.

(Q) 72. Who was the first King of Media, after it had revolted from Assyria, and what place did he build?

(A) Deioces, B.C. 709; he built Ecbatana, and fortified it with a sevenfold wall.

(To be continued.)

AN OCEAN VOYAGE.

WRITTEN BY A. SCOTT CRUIKSHANK, HAMILTON, ONT., ON A VOYAGE FROM NEW YORK TO GLASGOW.

The second bell has just been rung,
Her mooring from the steamer flung ;
All hands aboard ! Away we steer,
'Mid parting salvos from the pier !

Now bursts to view the spiendid pile
Erected on Manhattan Isle ;
One wonders if New York can be,
The city of a century.
A hasty glance the traveller casts,
O'er forests of North-River masts ;
Here, Brooklyn's famous chapel-spires,
Here, Jersey City's fact'ry fires :
Through endless busy craft we wind,
Great Gotham vanishing behind.

The landscape southward, now affords
A panorama passing words ;
Long Island's summer groves appear,
Yet more enchanting year by year,
New Jersey vies with sunny France,
For fruits of rare luxuriance ;
While Staten's mansions " white and green,"
In artful contrast deck the scene.

Advancing with the ebbing tide,
See stanch and stern, on either side,
Forts Lafayette and Richmond rise
With jealous, watchful Argus eyes.
The Narrows cleared, the Hook we gain,
And thence bear eastward on the main.
The order now is passed " Full speed,"
Soon, landmarks one by one recede :
Behind, the sunset's crimson hue,
Around, the vast expanse of blue,
And placid ocean—peerless theme
For painter's fancy, poet's dream,
One lasting look, good-bye, good-bye,
The glories of a western sky !

* * * *

Fore and aft, our living freight
In groups together congregate,
Discussing topics of the times,
Advantages of foreign climes,
The tokens of a threat'ning breeze,
The risks and dangers of the seas ;
Or pensive sit, and still reveal
Emotions they would fain conceal ;
So thoughts diverse the mind entrance,
As differ age and circumstance.

Day after day, with steady force,
Our ship progresses on her course ;
Day after day, but little new
Appears in circuit of our view.
Here, Mother Carey's chickens roam
In mid-Atlantic—yet at home !
Athwart our bows the dolphins play,
Astern, the shark pursues its prey ;
To leeward now, a spouting whale
Attracts attention ; then a sail
Bears on our track, perchance so near
That friendly tones salute the ear.

A change of scene—Our utmost sail
Is furled before th' increasing gale ;
And soon the waters rous'd from sleep,
Begin to call " deep unto deep."
Some love to watch the vessel ride
Majestic o'er the rolling tide,
While others on the land would be,
Forgetting, " Heaven's as near by sea."
But solemn lessons underlie
This grandeur of the sea and sky,
For he who studies nature well,
Can scarcely live an infidel.
Like ocean, nothing shows at once,
Man's power and insignificance ;
Like ocean, nought so well explains
A God that plans, creates, sustains.

In time the winds are hush'd to rest,
The waves subdued on Ocean's breast,
And as the distance lessens fast,
Oft anxious eyes for land are cast ;
The green of Erin first appears,
Evoking oft repeated cheers ;
A sight of Scotia's heather starts
The blood in patriotic hearts.
Now passing Rathlin to the sea,
The Giant's Causway on our lee,
By Ailsa Craig we smoothly glide,
Along the bonnie Frith O'Clyde ;
Here, nature, in her grander moods,
Forms rugged mountains, rushing floods ;
While eastward, Beauty's magic wand
Enchants the stream, adorns the land.

From Nature soon to art we come,
And reach St. Mungo's busy hum,

Where voyage happ'ly ends, Adieu,
Our captain and his gallant crew ;
No franker, safer guide than he,
Controls a vessel on the sea :

And friendly passengers, once more
My greetings on this farther shore ;
That kindred *life*-voy'ge be your lot,
So prays your fellow-trav'ler SCOTT.

SOLUTIONS TO QUESTIONS AT THE RECENT EXAMINATIONS.

BY CHAS. A. BARNES, ESQ., HEAD MASTER, STRATHROY PUBLIC SCHOOL.

ALGEBRA, SECOND CLASS.

I. (*a*) By ordinary division the quotient is

$$(1+m)\,x-(1+n)y.$$

(*b*.) Since x^3-y^3 is divisible by $x-y$. hence

$(a+a^2\,b^{\frac{1}{2}}+b)^3-(a-a^{\frac{1}{2}}\,b^{\frac{1}{2}}+b)^3$ is divisible by

$(a+a^{\frac{1}{2}}\,b^{\frac{1}{2}}+b)-(a-a^{\frac{1}{2}}\,b^{\frac{1}{2}}+b)$ or $2a^{\frac{1}{2}}\,b^{\frac{1}{2}}$.

II. (*a*) Factors of

$$x^4+2xy(x^2-y^2)-y^4$$
$$=(x^2+y^2)\,(x^2-y^2)+2xy\,(x^2-y^2$$
$$=(x^2+2xy+y^2)\,(x^2-y^2)$$
$$=(x+y)^2\;x-y \text{ Ans.}$$

(*b*) $a^2\,(b-c)+b^2\,(c-a)+c^2\,(a-b)$.

When $a=b$ or that is $a-b=0$, the whole expression becomes zero, therefore $a-b$ is a factor.

Similarly, when $a=c$ or that is $a-c=0$, the whole expression vanishes, and therefore $a-c$ is a factor.

In the same manner it may be shown that $b-c$ is a factor. Hence, the factors are $(a-b)\,(a-c)\,(b-c.)$

This might also be solved by removing brackets

$$a^2\,b-a^2\,c+b^2\,c-ab^2+ac^2-bc^2$$
$$=(a-b)\,(ab-ac-bc+c^2)$$
$$=(a-b)\,(a-c)\,(b-c), \text{ as before.}$$

(*c*) $25x^4+5x^3-x-1$
$$=25x^4-1+5x^3-x$$
$$=(5x^2-1)\,(5x+1)+(5x^2-1)x$$
$$=(5x^2-1)\,(5x^2+x+1).$$

III. Divide x^3+px^2+qx+r by x^2+mx+n,

and let the quotient be $x+\frac{r}{n}$

Then since the divisor multiplied by quotient-equals, the dividend

$$\therefore\; x^3+px^2+qx+r=(x^2+mx+n)\left(x+\frac{r}{n}\right)$$
$$=x^3+\left(m+\frac{r}{n}\right)x^2+\left(\frac{mr}{n}+n\right)x+r$$

Then equate the coefficients of like powers of x

$$\because\; p=\left(m+\frac{r}{n}\right) \quad \text{I.}$$
$$q=\left(\frac{mr}{n}+n\right) \quad \text{II.}$$

From II. we get

$$q-n=\frac{mr}{n}$$

or $qn-n_2=mr$

Another method of solution is, divide by ordinary division, thus:

$$x^2+mx+n)\;x^3+px^2+qx+r\;(x+(p-m)$$
$$x^3+mx^2+nx$$
$$(p-m)x^2+(q-n)x+r$$
$$(p-m)x^2+m(p-m)x+n(p-m)$$
$$\{q-n-m(p-m)\}x+\{r-n(p-m)\}$$

Now, by the conditions of the question the dividend must be exactly divisible by the divisor ; in that case, the remainder must be zero, hence

$$\{q-n-m(p-m)x\}+\{r-n(p-m)\}=0$$

And since this is true for all values of x, let x be infinitely small, then the first term will vanish, and we have

$$r-n(p-m)=0 \qquad (I.)$$

and therefore,

$$\{ q-n-m(p-m)x \} = 0$$

or $$q-n-m(p-m)=0 \qquad (II.)$$

From (I,) $$p-m=\frac{r}{n}$$

Substitue in the II. and we get

$$q-n-m\left(\frac{r}{n}\right)=0$$

or $qn-n^2=mr$.

IV. *a*, Bookwork.

b, By ordinary method $x-1=$ G.C.M.

c, By factoring, we get

$$(1+x^{\frac{1}{2}})(1+x)$$

and $$(1+x^{\frac{1}{2}})(2x+3x^2)$$

$\therefore$ $1+x^{\frac{1}{2}}=$ G.C.M.

V. *a* Bookwork.

b.
$$\frac{(x+y-z)}{(y+z+x)}\frac{(x-y+z)}{(y+z-x)} \times \frac{(y-z+x)}{(z+x-y)} \times \frac{(y+z-x)}{(z+x+y)} \times \frac{(z-x+y)}{(x+y-z)}\frac{(z+x-y)}{(x+y+z)}$$
$$=\frac{(x-y+z)(x+y-z)(y+z-x)}{(x+y+z)^3}$$

c,
$$\frac{a}{a^2+b^2}-\frac{a}{a^2-b^2}+\frac{a^2}{(a-b)(a^2+b^2)}-\frac{2a^3-b^3-ab^3}{a^4-b^4}$$

L.C.M. of Denominators is a^4-b^4

$\therefore$ the expression equals

$$\frac{a(a^2-b^2)-a(a^2+b^2)+a^2(a+b)-(2a^3-b^3-ab^3)}{a^4-b^4}$$
$$=\frac{a^2b-2ab^2-a^3+b^3+ab^3}{a^4-b^4}$$

VI. *a*. Bookwork.

b. $(2+x)(m-3)=-4-2mx$

or $2m-6+mx-3x=-4-2mx$

or $3x(m-1)=2(1-m)$

$\therefore$ $x=-\frac{2}{3}$.

c. Write equation as follows :

$$\frac{16x-12-1}{4x-3}+\frac{40x-45+2}{8x-9}=\frac{32x-28-2}{8x-7}+\frac{20x-25+1}{4x-5}.$$

$$\therefore\ 4-\frac{1}{4x-3}+5+\frac{2}{8x-9}=4-\frac{2}{8x-7}+5+\frac{1}{4x-5}$$

$$\therefore\ \frac{2}{8x-9}+\frac{2}{8x-7}=\frac{1}{4x-5}+\frac{1}{4x-3}$$

or $$\frac{32(x-1)}{(8x-9)(8x-7)}=\frac{8(x-1)}{(4x-5)(4x-3)}$$

which is manifestly satisfied by $x-1=0$

$\therefore$ $x=1$.

VII. *a*. Bookwork.

b. $ax+by=c$ (I)

$a'x+b'y=c'$ (II)

$a''x+b''y=c''$ (III)

from (I) and (II) we get x equals

$$x=\frac{b'c-b'c}{ab'-a'b} \qquad y=\frac{ac'-a'c}{ab'-a'b}$$

Substitute these values for x and y in (III), and we get

$$\frac{a''(b'c-bc')}{ab'-a'b}+\frac{b''(ac'-a'c)}{ab'-a'b}=c''$$

or $a''(b'c-bc')+b''(ac'-a'c)+c''(a'b-ab')$ equals 0.

VIII. *a*. $\sqrt[3]{n+x}+\sqrt[3]{n-x}=m$.

Cubing each side we get

$$n+x+n-x+3(\sqrt[3]{n^2-x^2})m=m^3$$

or $$3(\sqrt[3]{n^2-x^2})m=m$$

$\therefore$ $$n^2-x^2=\left(\frac{m^3-2n}{3m}\right)^3$$

or $$x=\left\{n^2-\left(\frac{m^3-2n}{3m}\right)^3\right\}^{\frac{1}{2}}$$

b. By adding the three equations

$5(x+y+z)=45$

$\therefore\ x+y+z=9$

and from (I.) $3x+y+z=13$

$2x=4$

$x=2$

Similarly $y=3$

$z=4.$

IX. Let x = number of pieces of 1st kind

$c-x=$ " " 2nd "

$$\therefore \frac{x}{a}+\frac{c-x}{b}=£1$$

Solution gives

$$x=a\frac{(c-b)}{a-b}$$ equals pieces of 1st kind

and $$\frac{b(a-c)}{a-b}$$ equals pieces of 2nd kind

X. Let x equal rate per hour at starting

then $\frac{1\frac{1}{2}}{x}$ equal time for the first mile and a half.

He is then detained 20′ or $\frac{1}{3}$ hour;

then he increases his speed $1\frac{1}{2}$ miles per hour.

$\therefore \frac{3}{x+1\frac{1}{2}}$ equals time required for rest of journey.

Hence $\frac{1\frac{1}{2}}{x}+\frac{1}{3}+\frac{3}{x+1\frac{1}{2}}=$ whole time, and $\frac{4\frac{1}{2}}{x}$ equal total time.

$$\therefore \frac{1\frac{1}{2}}{x}+\frac{1}{3}+\frac{3}{x+1\frac{1}{2}}=\frac{4\frac{1}{2}}{x}$$

or $$\frac{1}{3}+\frac{3}{x+1\frac{1}{2}}=\frac{3}{x}$$

clear of fractions

$2x^2+3x=27.$

Solution gives $x=3$ miles per hour.

XI. *a*. Let $\frac{a}{b}=\frac{c}{d}=x$ say. (I)

then $\frac{a^4}{b^4}=x^4\ \therefore\ a^4=b^4x^4$

$$\frac{c^4}{d^4}=\ \therefore\ c^4=d^4x^4$$

add $a^4+c^4=(b^4+d^4)x^4$

$$\text{or } \frac{a^4+c^4}{b^4+d^4}=x^4 \quad \text{(II.)}$$

Again, from (1)

$a^2=b^2x^2$

$c^2=d^2x^2$

Multiply $a^2c^2=(b^2d^2)x^4$

$$\therefore \frac{a^2c^2}{b^2d^2}=x^4 \quad \text{(III)}$$

from (II) and (III) $\frac{a^4c^4}{b^4d^4}=\frac{a^2c^2}{b^2d^2}$

b. Let $x^5+290x^4+279x^3-2892x^2-585x-312$ be denoted by $f(x)$ and divide by $x+289$ denoting the quotient by Q and the remainder by R.

We have

$$\frac{f(x)}{x+289}=Q+\frac{R}{x+289}$$

Clear of fractions $f(x)$ equals $Q(x+289)+R$.

Now since R does not contain x it will remain unchanged for all values of x, let $x=-289$

then $f(-289)$ equals $Q(-289+289)+R$.

or $R=f(-289)$

but $f(-289)$ is the value of x^5+290x^4+ - - - - - - -312 when -289 is substituted for x, and we see that $f(-289)$ is the remainder when

x^5+290x^4+ - - - - 312 is divided by $x+289$.

Hence, to find the value of x^5+290x^4 + - - - - - -312, divide it by $x+289$, by Horner's method of division and the remainder will be the value sought, viz. 2,000.

c. In the expression

$(a+b+c)^3-(a+b+c)(a^2-ab+c^2-ac)-3abc$

if a equals $-b$ the expression vanishes and therefore $a+b$ is a factor,

Similarly if $b=-c$ the expression van-

ishes and therefore b+c is a factor.

Similarly c+a is a factor

and ∴ the factors must be (a+b) (b+c) (c+a).

Again, let a=b=c=1, then we find that there are twenty-four terms on the left hand side and only eight on the right, but since the expressions are identical there must be the same number on each side, we must therefore, multiply the right-hand side by 3.

Hence we get

$3(a+b)(b+c)(c+a)$.

NATURAL PHILOSOPHY—SECOND CLASS.

1. Bookwork.

2. Let the force of 6 lbs. be represented in the form (5+1). Then resolve the 1 lb. on each side in the direction in which the 4 lb. force acts, and we get 1 lb. which together with the 4 lbs., will make 5 lbs. acting in that direction.

Also, resolve them at right-angles to the 4 lb. force. These latter parts being equal and opposite will vanish.

Then we have two forces of 5 lbs. each, acting at an angle of 60° and by parallelogram of forces.

Resultant $=5\sqrt{3}$.

3. (*a*) Bookwork.

(*b*) Let AB be the rod, $2m$ length ∴ weight equals $6m$.

Let W equal weight attached to the end A.

Let *f* equal fulcrum.

Take moments arouud *f*,

$$2W=(m-2)\,6m \quad (1)$$

Also $W+6m=300$ (2)

Solution of these equations gives W equal 240.

4. 576×3.1416 equals area of plate.

64×3.1416 " " hole.

512×3.1416 " " remaind'r

Let x equal distance from centre of plate to the C. G. required.

Take moments around centre of plate.

And since the masses are proportic al to the above nnmbers,

$$\therefore\ 576\times3.1416\times0=64\times3.1416\times12+512\times3.1416\times x$$

or 0 equals $12+8x$

x equals $-1\frac{1}{2}$ inches.

The minus sign showing that the C. G. lies to the left of the point about which we took the moments.

5. Since the solidity of a cylinder is found by multiplying the area of the base by its height,

$$\therefore\ (h\times3.1416)(r_1^2+r_2^2+\text{- - - -}\ r_n^2)x=(h\times3.1416)r_1^2\frac{h}{2}+(h\times3.1416)r_2^2\cdot3\frac{h}{2}+\text{- - - - -}\ (h\times3.1416)r_n^2(2n-1)\frac{h}{2}$$

$$\therefore\ x=\frac{r_1^2+3r_2^2+5r_3^2\ \text{- - -}\ +2n-1r_n^2\cdot\frac{h}{2}}{r_1^2+r_2^2+\text{- - - - - - -}\ r_n^2}$$

6. (*a*) Bookwork.

(*b*) Let x be the density of sea water at 39.1°

and r^1 - - - - - - - fresh water at 39.1°

gr=weight of one volume of sea water at 39.1°

gr^1=weight of one volume of fresh water 39.1°

Then $\frac{gr}{gr^1}$ or $\frac{r}{r^1}$=specific gravity required

gr=weight of one volume of sea water at 39.1°

gr=1.0017 volumes of sea water at 60° since the weight does not change.

gr^1=weight of one volume of fresh water at 39.1°

gr^1=100094 volumes of fresh water at 60°

∴ 1 volume at 60° of sea water equals $\frac{gr}{1.0017}$ in weight

and 1 volume at 60° of fresh wate1

$= \frac{gr}{1.00094}$ in weight

$\therefore \frac{gr}{1.0017} \div \frac{gr'}{1.00094}$ = specific gravity of sea water at 60°

$= 1.0262$ by the question, or specific gravity required

$= \frac{r}{r'} = \frac{1.0017 \times 1.0262}{1.00094}$

$= 1.0269$.

7. Bookwork.

8. Bookwork.

NOTE.--The paper is an exceedingly good one; and any candidate who knew a fair outline of the subject, and understood the principles, could easily make 70 to 80 per cent. on it.

SELECTIONS.

PHYSICS AND EDUCATION.

All the sciences which deal with the phenomena of physical nature are being formulated in terms of force and motion. The phenomena of the physical world are found capable of explanation in the same degree in which they can be embraced in the laws of dynamics. Since biology, or the science which deals with the phenomena of life, is properly a branch of physics, in the larger signification of the term, it too in all its branches, such as physiology, psychology, sociology, and ethology or education, is being rapidly embraced in the concepts and formulas of dynamics. Hence, in the lauguage of Prof. Huxley, it has now become a permanently-established scientific idea "that vital phenomena, like all other phenomena of the physical world, are capable of mechanical explanation, that they are reducible to law and order, and that the study of biology, in the long run is an application of the great sciences of physics and chemistry." Under the concepts of physics, which are those of force and motion, has mind been brought through the generalization that life consists in the adjustment between internal and external activities and relations.

Life in all its forms, both physical and mental, is maintained by a double process kept up through the interaction of antagonistic forces. The growth force which intergates or assimilates material and thereby increases size is essentially attractive in its nature, which tends to build up the vital fabric into specialized parts called organs, to a certain extent antagonizes growth by adapting the organism to new, higher, and more complex modes of activity. Perfect health, both physical and mental, would consist in the complete equilibrium of those two antagonistic forces. Hence growth by increasing the size of the organism and repairing its normal waste exhibits life as a conservatism, while development by an increase of function through differentiation exhibits life as an evolution; the former presents life in its statics and sameness, the latter, life in its dynamics and progressiveness.

Those fundamental principles of life have important, practical implications for educational science which deals with life in its highest form, namely, 'human consciousness.' We have here also the two elements of vital force. One of these is exerted in mental growth, and in imparting to the mental organism increased power and facility in doing whatever has been learned; while development through conscious effort leads out the mind into higher, more difficult, and complex modes of activity. By a continual repetition of mental processes the element of conscious effort becomes at

last eliminated, and the processes themselves become automatic by becoming on their physical side permanent growths, inwrought into the nervous system. Hence automatism antagonizes consciousnes which is the condition of increased specialization and development. Consciousness stands in the way of mental processes which have become thoroughly automatic; whereas a vivid and intense self-consciousness is an indispensable condition to the rapid acquisition of new modes of mental action. Hence automatism is the enemy and consciousness, the condition of mental progress and development. On the other hand, the former constitutes the efficient machinery of life; but which at the same time, by consuming the psychic force renders fnrther progress in learning new things more difficult, and even impossible. The homely saying that it is hard to teach an old dog new tricks embodies an important psychological and educational principle. Habit and automatism tend to impress on the mental organism a fixed and unvarying uniformity of action. To antagonize this tendency requires a roused and intense self-consciousness which shall stimulate the mind to new and difficult acquisitions. We may then, say that automatism constitutes the statics of mind, and consciousness, its dynamics. In view of the fore going principles it is not too much to say that the whole problem of mental growth and development consists in harmonizing and balancing these two "sustaining opposites." If the element of consciousness predominates, there will be no efficient specialization. The mental product will, like the *amæba*, belong to the unspecialized, being "neither one thing nor another." On the other hand, if the automatic element predominates, especially during the formative period of life, the mind becomes dwarfed, and capable of moving in only a circumscribed sphere. When the mind is left wholly to automatism, its spontaneities are suppressed, and it runs on in machine-like regularity, incapable of further improvement. Left wholly to the law of consciousness its activities are dissipated in fruitless effort. The life of the soul in this case, becomes the burden of an adjusted existence, tormented with the vain effort to respond successfully, to environing relations; and is ever haunted with the

"Blank misgivings of a creature
Moving about in worlds not realized."

It is this class of persons whose lives remain unsolved problems, of whom Gœthe speaks when he says "There are problematic characters who are not equal to any situation in life, and whom no situation satisfies," Truly does Carlyle say, "Blessed is the man that hath found his work." Yet when a man has found his work, if automatism wholly enwraps his soul within its iron coils he will find that his mind will, day by day, move in a gradually-contracting sphere; and that the fires of enthusiasm which, in early life threw a charm and radiance over existence, and imparted to it even "the glory and the freshness of a dream," will go in ashes, and that his only source of vital heat will be the dull and somber "light of common day."

Hence to adjust properly those two psychic forces, to give to automatism what must be given in order to make life efficient for some speciality, and, at the same time, to allow the mind room for expanding into new modes of activity, in order to keep up the enthusiasm of existence, constitutes not only the problem of education, but also the problem of life. Happy is the child, happy is the man or the woman, that finds this golden mean. Those two forces, harmoniously adjusted, will give as a resultant moral equilibrium and stability of purpose on the one hand, and on the other, force of character, activity, h. pefulness, and enthusiasm, kept alive and fed by new acquisitions.

From the foregoing inductions we obtain the following deductions as educational principles:

1st. The higher up in the scale of being is the place occupied by an organism, and the more complex and heterogeneous are the relations to which it is destined to respond, the longer is the period of evolution through which it passes in arriving at a completed development. Man being the highest and most extensively specialized in his mental relations of all earthly beings, must necessarily pass through a period of helpless infancy and of training, because he starts mentally from an embryonic and undeveloped state. It is only by long and laborious effort, after many failures and mistakes, that the "manikin" by linking

together in a complex web the gossamer threads of sense and thought gradually feels his way

"Out from the shore of the great unknown,
Blind, and wailing, and alone,
Into the light of day."

2nd. The fact that mental life and development are the resultant of two opposing forces, or tendencies, shows why it is that precociousness so often disappoints the hopes it inspires. The more rapidly an organizm becomes specialized, the sooner will it become stationary, and non-progressive. By an early and rapid specialization of the nervous system as the physical mechanism of mind, the mind itself becomes rigid and incapable of manifesting itself in new determinations. The mind being a highly-complex organism demands ample time for the full unfolding of its powers. The child-mind should be allowed to swing out with free repulsive energy, under the stimulus of hope and liberty. To have the orderly and healthful unfolding of its faculties arrested, and the child thus made prematurely old by the hasty utilizing of its energies in some business pursuit, is a calamity to a human being, and a custom as cruel, if not as revolting, as the sacrificing of children in ancient times to the god Moloch. The principles of mental evolution teach that young children should be allowed to enjoy to the fullest extent the delight and liberty of an unspecialized existence. Full soon life will be compelled to draw in her outposts, and to concentrate her forces, in order to wage a successful battle against opposing powers.

3. An early specialization of faculties tends to arrest further development, so retarding development tends to make the mental organism grow without any specific form. Though the principles of evolution teach that all the so-called mental faculties are developed simultaneously, yet there are periods when sensation, perception, conception, and reason, respectively, predominate. Keeping the pupil under the tuition of the senses when memory and imagination ought to predominate has a dwarfing effect on the mind; and perception which, at the first was healthy, degenerates into a dead *sensationalism*; or if conception, in the form of either memory or imagination, be held back, and its images or products be continually redissolved into their simple elements, then the life becomes prosaic, and a stranger to that poetic fervor which with Milton can ascend on seraph wings into the empyrean of fancy. So also if the logical faculty, which seeks to formulate the general, the universal, and the abstract, out of the special, the contingent, and the concrete, be held back, and its products be redissolved into their original elements, then the robust style of mind which might have been produced under a normal development becomes displaced by a weak and sentimental one.

4th. Since automatism tends to antagonize evolution, it may be laid down as a rule the more specialized an organism has become for a particular form of activity, and the more easily and successfully it can co-ordinate the movements which this demands, the more difficult will it be for it to change, and to re-adjust itself to a new set of co-ordinations. It is rare to find a pupil who learns equally well all the branches; and the one that flits from one study to another will not succeed in mastering any of them. The undeveloped mind adheres tenaciously to old customs and ideas, not through stubbornness, as most persons suppose, but from lack of ability to re-adjust itself to the new *regime*. In minds which have not received a complex and varied development, the psychic force has been consumed in nourishing one or two faculties, while all the others have become atrophied. Yet it should be remembered that no mind, however capacious, can be developed into a Briareus, capable of reaching out and grasping a hundred different subjects, each one requiring a distinct set of co-ordinations to respond to its details.—*J. M. Long, A.M., in National Teacher.*

EDUCATIONAL INTELLIGENCE.

CANADA.

—The following is a list of the Normal School students who have been successful in competing for second-class certificates: *A*—J. F. White, Lilla Stuart Dunlop. *B*—Edward Bruce, Daniel Burke, George S. R. Grofener, Lewis Elwood Hambly, Henry Kenyon, Samuel Nelson McCready, Charles Ambrose Winter, Maggie Lang Alexander, Marjory Curlette, Lizzie Foulds, Lizzie Gallatly, Margaret Stephen Edwards, Mary Horsburg, Matty Head, Eliza Jane Jarvis, Emily Madora Lyon, Emily Lillie McCredie, Mina Ross, Elizabeth Yates Samo. With the exception of Mr. Henry Kenyon all belong to Toronto Normal School.

—The following are the successful candidates for first-class certificates at the recent examination; First A—McLung, James (gold medal); Barnes, Charles Andrew, Tom, John E., equal (bronze medals); Cochrane, Robert R.; McAllister, Samuel. First B—Ilis, Bella; Summerby, William Joseph. First C—Corneil, Daniel; Campbell, Neil Moore; Grant, Kate. Excepting Messrs. McLung and McAllister, those recommended are Normal School students.

—A Competitive Examination of the Public Schools in the Township of Amelias burgh, was held on Friday, July 8th, at the school-house in Union Section 11, and was attended by upwards of a hundred children as well as a large number of teachers, parents and friends. The exercises opened shortly after 9 o'clock, and were under the direction of G. D. Platt, B.A., County Inspector, who was ably assisted by the following gentlemen as examiners: Messrs. S. B. Nethery, of Bloomfield public school; Thomas Wicher, Upper Canada College; Fred Manley, Toronto Collegiate Institute; John Kinney, late teacher No. 5 Hallowell; W. H Post, No. 16 Hallowell; and Geo. McDonald, student Queen's University. Printed questions were submitted to the 2nd, 3rd, 4th and 5th classes, in the subjects of arithmetic, grammar, geography and to the 5th class alone in history and algebra, while all were examined in reading. An intermission of an hour was had at noon for refreshments, which were provided in abundance by the kind ladies of the vicinity, or brought by parents of competitors from adjoining sections. By 5 p.m., the work of the examiners was completed, when the names of the successful candidates were read by the Inspector, and the presentation of prizes by W. R. Dempster, Esq., Reeve of the Township and Warden of Prince Edward, followed. About 120 beautifully bound volumes were distributed, which had been purchased by funds contributed by the Warden, and Messrs. Nightingale, Johnson and Bonter, of the municipal council of the township, and J. Sprague and W. Delong, Esqs., each having subscribed five dollars.

The proceedings were brought to a close by brief speeches from the examiners Dr. Nash, Wm. Anderson, Esq., and the Warden, with the usual vote of thanks.

—The following is the address presented to the Hon. A. Crooks, by the North York Teachers' Association, at its meeting on the 7th July last. It has been sent us only very recently.

To the Hon. Adam Crooks, Minister of Education:—

SIR:—It affords us very much pleasure to express, in the name of the Teachers of North York, and of the friends of education generally, our satisfaction and obligation to you for your visit amongst us today. It augurs well for the important interests represented by us that one so lately appointed to the charge of so responsible an office, should be ready at the invitation of County Associations, to meet with them and their constituents to discuss and understand the carrying out the School Law in its details. That you should be thus ready, at the sacrifice of no little time and labor, to become practically acquainted with the operation of the school law, promises well, we think, for the efficient discharge of your duties; and we therefore cordially rejoice at your appointment, and assure you that very largely you will share our sympathy and co-operation, in encoun-

tering and overcoming the difficulties that are still numerous enough to make the opposite of a sinecure.

While we claim that through the untiring efforts of your worthy predecessor Dr. Ryerson, our system is not surpassed, at least in breadth and minuteness of detail, in any country, we are painfully conscious of causes rendering all its liberal provisions almost inoperative; and we feel confident that our alluding to some of them is only necessary to secure your best effort for their removal. First, and greatest is the fearful irregularity in attendance which paralyses the teacher and renders useless the fitful efforts of those who attend.

We are aware of treading on delicate ground, when we assert that the system is suffering from the multiplying and renewing of certificates of a low grade, and putting them into the hands of untrained youths. That good teachers are suffering, and that schools cannot make the best progress must however be admitted by all who look into the character of those now employed as teachers. Other evils only to be mentioned but requiring your very serious attention are to be found in the too frequent change of teachers and in the great inequality of taxation for school purposes.

Without further trespassing on your patience, allow us again to thank you for your presence amongst us to-day, to express earnestly the hope that you may long be spared to fill the honorable and heavily responsible office of Minister of Education, greatly to the advantage of our beloved country, and equally to your own abiding credit.

Signed on behalf of the Teachers.

D. FOTHERINGHAM, President.

—We have before us excellent and interesting reports by the following Inspectors: A. MacCallum, Esq., M.A., Hamilton; T. Pearce, Esq., Waterloo; F. Burrows, Esq., Lennox and Addington; and W. Mackintosh, Esq., North Hastings. We will briefly refer to each. *Hamilton*—Total number of pupils registered in 1875, 5229; boys 2766, girls 2464; of these, 3700 were over 16 years of age. This is an increase of 127 over 1874. Daily average attendance for the year 3395, a percentage of 65 on the enrollment. Tables are given, containing very full information in regard to the schools, and also tables which must have cost a good deal of labor, showing the gradual yet steady progress of the schools in the City of Hamilton for the last twenty-five years. Mr. McCallum speaks in very congratulatory terms of the success of the pupils of the public schools in passing the Collegiate Institute Entrance Examinations; 213 were admitted out of 280 applicants. — *Waterloo*—Mr. Pearce's report occupies 24 pages, and is very full in its statistical information. A feature in it is a report of the condition and progress of each individual school, generally creditable to the teacher and Trustees, but in some instances quite the reverse. On the whole very considerable progress has been made. The total receipts for school purposes during 1875 was $94,066.29; total expenditure $80,769.03, of which over $52,000 was paid for teachers' salaries, and over $15,000 for building and sites. The total number of children in the county between the ages of 5 and 16 years, for 1875, was 11,814—increase 51. The number whose names were entered on the School Registers, 5 to 16, was 11, 106—decrease 184. The number on the Registers of all ages, 11,369—decrease 138. Boys, 6291; girls, 5078. The number of pupils that attended school less than 50 days in the year was 2707—decrease 492. The number that attended over 150 days, 3250—decrease 95. The average attendance for the first half-year was 5570—increase 497; for the second half-year, 4853—increase 485. The yearly average attendance was 46 per cent. of the whole number on the Registers—an increase on the previous year of 5 per cent. — *Lennox and Addington* — The total amount raised for school purposes during the year 1875 was $39,149, of which $26,404 went for teachers' salaries an excess of $6,869 over amount paid teachers in 1871. The whole number of pupils registered during the year was 6639—3461 boys, and 3178 girls—being an average of 56 to each teacher. The aggregate average attendance for 1st half-year was 2716, and for second half-year 2511, a slight improvement on preceding year. 92 children between the ages of 7 and 12 were reported as not attending any school.

Of the 117 teachers (29 male and 88 females) employed, 3 held first-class Provincial certificates, 10 second-class Provincial, 8 first-class old County Board, 26 second-

class old Board, and 11 permits from Inspector—the last mentioned being held by teachers in the back townships. The highest salary paid a male teacher was $575 and the lowest 216. The highest salary paid a female teacher was $360 and the lowest 144. The average salary of male teachers was $392, and of female teachers $212. Mr. Burrows refers specially to the greatly increased expenditure on account of teachers' salaries.—*North Hastings.*—Mr. Macintosh refers in the opening of his report to a difficulty he experienced in procuring accurate returns from trustees, and to the formation of a new school section in the new townships of Lyell and Murchison.

During the year 1875 the total amount of receipts for school purposes was $27,225.52—an increase of $1,695.02 over 1874.

In payment of teachers' salaries $16,629.70 was disbursed, an increase of $2,245.28 over the amount expended for the same purpose in 1874.

For the repairs of school-houses, fences, or grounds, the total expenditure was $1,840.40. For the purchase of sites and the erection of school-houses, $3,861.43 was spent. The total amount of disbursements was $24,941.28, an increase of $2,677.76 over 1874.

The amount expended for each pupil whose name was enrolled on a school register during the year was $5.28.

The total number of school-houses in the Riding, at the close of 1875, was 78—8 being built of brick, 7 of stone, 39 of frame, and 24 of log. During 1875, nine school houses were erected, 8 frame and 1 brick. Since Mr. Mackintosh's appointment in 1874, 18 have been built, and 43 since 1870.

The total number of children between the ages of 5 and 16 resident in the Riding was, in December, 4,891. Of these 441 did not attend school at all, a decrease of 222 for the year. The number of pupils of all ages who attended school was 4,717, an increase of 223.

Eighty teachers were employed during the year. Their qualifications were as follows: Provincial second-class, 4; third-class, 36; old County Board first-class, 4; interim and special certificates, 36.

The highest salary paid to any male teacher during the year was $515, the lowest $192. The average salary paid to male teachers was $302.15, to female teachers, $235.19.

One hundred and forty-eight visits, for the purpose of Inspection were made during the year. The average time occupied by each visit was 3¼ hours. This time was taken up in examining pupils, in actual teaching for the purpose of exemplifying improved methods, and in advising teachers in regard to needed improvements.

Two Institutes have met regularly during the year at Sterling and Madoc. There is in this way a meeting of teachers once in three weeks.

—At the recent High School Intermediate Examination, out of 1675 candidates only 234 succeeded in passing, and out of 102 High Schools, including Collegate Institutes, there were 50 that did not pass any. The following are the number of candidates passed by the several schools:

School	Succesful Candidates	School	Successful Candidates
Arnprior	1	Newcastle	1
Barrie	2	Newmarket	3
Berlin	3	Norwood	1
Bowmanville	8	Oakville	2
Brockville	2	Orangeville	1
Caledonia	2	Oshawa	1
Chatham	1	Paris	4
Clinton	5	Parkhill	2
Cobourg	9	Perth	2
Cornwall	1	Peterboro'	3
Elora	2	Port Hope	5
Gananoque	4	Richmond Hill	1
Goderich	3	Sarnia	2
Guelph	1	Strathroy	3
Ingersoll	2	St. Catharines	18
Kincardine	1	St. Mary's	6
Kingston	1	St. Thomas	2
London	4	Vankleekhill	1
Markham	1	Walkerton	2
Napanee	4	Wardsville	1
Newburg	2	Waterdown	3
Weston	3	Brantford	20
Collingwood	11	Toronto	12
Port Perry	13	Whitby	12
Hamilton	20	Galt	6
Ottawa	6	Owen Sound	8
		Total	234

Of the above institutions nine are Collegiate Institutes, which in point of number come in this order:

Brantford	20	Galt	6
Hamilton	20	Ottawa	5
St. Catharines	12	Peterboro	3
Toronto	18	Kingston	1
Cobourg	9		

—The annual meeting of the Ontario Teachers' Association was held in the theatre of the Normal School, Toronto, commencing on Tuesday, 8th August. In the absence of the President, Rev. Dr. Ryerson, the chair was taken by Mr. Robert McQueen, 1st Vice-President.

The proceedings commenced with the reading of the 67th Psalm and prayer by Mr. McCallum.

The Secretary (Mr. A. McMurchy) called the roll of officers.

The minutes were held as read.

The Secretary stated that he had communicated with several gentlemen in reference to the delivery of an address to the Association. He said Dr. Hanel, of Victoria College had consented to deliver an address. Dr. Ryerson had left an address, which would be read that evening, and their late President, Professor Goldwin Smith, had lately consented to address the Association.

The Secretary suggested that a minute should be prepared in reference to their regretted friend, the late J. B. Dixon, of Peterboro. He moved, "That the following members be appointed a committee to draft a minute expressive of our esteem of the late J. B. Dixon, M.A., head master of the Peterboro Collegiate Institute—E. Scarlett, W. Anderson, W. McIntosh, and the mover; a copy of said minute to be sent to Mr. Dixon's family."

After several members had expressed their high esteem for their late friend, the motion was seconded by Mr. McIntosh and carried.

The Treasurer, Mr. S. McAllister, read the Treasurer's report, which showed the total receipts to have been $216, and the expenditure $107, leaving a balance of $109. The total assets were about $120 and the liabilities $56. He moved the adoption of the report, which was duly seconded and carried.

Mr. R. Alexander said that instead of making any lengthened remarks on the subject which had been assigned him, he would offer the following resolution :—"That in the opinion of this Association there should be a provision made for the thorough examination of new text books, and the careful revision of such text books as are, or may be, authorized. Therefore be it resolved that the appointment of a Committee for the above purpose be respectfully urged upon the attention of the Minister of Education, and furthermore, that the Committee be selected from the list of names furnished by Inspectors, County Associations, or by the Provincial Association.

Mr. Sudaby seconded the motion.

The motion was debated at considerable length, and the discussion was then adjourned.

At the evening session the Secretary read a communication from the President, expressing unabated interest in the work of the Association together with an address to the Inspectors and teachers of High and Public Schools, written by Dr. Ryerson at the time of his retirement from office, and then published in the *Journal of Education*. The paper dealt with the qualification, character, and remuneration of teachers, and pointed out the great improvement which had taken place in these matters of late years.

Mr. J. H. Knight moved, and Mr. Scarlett seconded, a vote of thanks to Dr. Ryerson.

Mr. Goldwin Smith was then introduced, and explained that he had that morning been requested to fill up an evening which was not expected to be otherwise occupied, delivered a very interesting address on a subject on which he had previously lectured in Toronto—"A tour in England."

A unanimous vote of thanks was tendered to Mr. Smith by the Convention.

A vote of thanks was passed to Mr. White, who, in responding to the vote, said that very likely the next meeting of the National Educational Association would be held in Put-in Bay, Lake Erie, and he hoped to see a large attendance of Canadian educationists.

The Convention then adjourned.

The Convention resumed at 2 p.m. the following day.

Mr. Richard Lewis read a paper on the examination of Public School teachers. He divided his subject into three parts :—1st, the principle upon which certificates were now granted; 2nd, the subjects of examination, especially for the award of the first-class certificates; 3rd, suggestions as to alterations and remedies. Considerable discussion followed, and the examination papers were criticized by several speakers.

Mr. McAllister then moved the follow

resolutions :—"That in the opinion of this Association, extended experience in successful teaching should be recognized as an important element in granting first and second-class certificates, should be allowed the option of taking up the whole of the subjects at one examination, or of dividing them into the work of two subsequent examinations—if they take up the whole at one examination and fail, they should be required to be examined the next year in those subjects only in which they failed; that means of appeal for first-class candidates should be provided, as in the case of second and third-class candidates; that the Central Committee should be required to assign the limits for each class of candidates at the commencement of each year, and to indicate as far as it can the means to be used in the preparation of the various subjects of examination for the guidance of those candidates who have not the opportunity of attending a Normal School; that the Central Committee should be required to adopt some effectual means to prevent the recurrence of such serious errors as have appeared in the preparation of some of the papers at the recent and previous examinations, and which in the recent examination have caused serious inconvenience and loss to many second-class candidates; that the summer vacations for Public Schools should be made the same as that for High Schools."

The subject was debated for some time, and the debate was finally adjourned. During the recess the Association were entertained at the Grange by Mr. and Mrs. Goldwin Smith.

At the evening session, Mr. Seath, of St. Catharines read a lengthy and able paper on the High School system. He pointed out what he considered the disadvantages of the system of distributing the Government Grant recently adopted, and suggested remedies. A long discussion followed, and after a vote of thanks to Mr. Seath, the Convention adjourned.

The Inspectors' section met at 9.30 a.m. the same day.

In the absence of the Chairman and Secretary Messrs. McCallum and Mackintosh were appointed to act in those capacities.

The forenoon was taken up by a very earnest and spirited discussion on School Registers, in which Messrs, Smith (Wentworth), Dr. Wadsworth (Norfolk), Knight (Victoria), Mackintosh (Hastings), Little (Halton), Harrison (Kent), Scarlett (Northumberland), Brown, (Peterboro), McCallum, and Dearness took part.

The further consideration of the subject was postponed until the 10th, at 9 a.m.

There was, however, an almost unanimous feeling that, in binding, form, and other respects the registers were extremely faulty. The General Register especially was severely animadverted on as being ill adapted for the purpose for which such a record should be intended.

In the Public School Teachers' Section a prolonged and exceedingly lively discussion took place on "Teachers' Examinations," the conclusions arrived at being embodied in a series of resolutions which will appear in the proceedings of the General Convention. It is unnecessary to do more than notice here the nature of the business transacted, as the subject of "examinations" was again fully discussed in connection with Mr. Lewis' paper. In addition to their finding on the subject of "Teachers' Examinations," the members passed a resolution affirming the desirability of making the Public School vacations as long as that of the High Schools.

The subject under discussion by the High School Masters was the recent Intermediate Examination, and the matter was treated in a very able and comparatively temperate manner. On account of the desultory character of the discussion, all that can here be done is to collect and summarize some of the views enumerated. The criticisms of the speakers were directed partly against the Intermediate Examination itself, but mainly against the manner in which the only one which has yet taken place was conducted. The substance of what was said may be put in this form: the Intermediate is of questionable utility at best, and if important modifications are not made in the manner of conducting it, it will act injuriously instead of beneficially on the schools. One objection was based on the character of the papers, especially those on algebra and history, the former being entirely too long, and the latter containing some questions unsuitable for boys and girls of 14 or 15 years of age. The exaction of a minimum of 40 per cent. on

every paper was felt to be a grievance, more especially as whenever a candidate fell below that percentage no more of his papers were read, and he was regarded as plucked, no matter how well he might be up in the aggregate. As a consequence of the adoption of this method, no detailed information could be furnished to teachers showing where and how their candidates had failed. It was suggested by one speaker that there should be no minimum prescribed and by another that the subject should be arranged in groups, such as Mathematics, English branches, etc., in each of which groups there might be a prescribed minimum. It was urged that while Boards of Trustees would hold the masters strictly responsible for the failure to pass pupils, there was no motive to which the masters could successfully appeal in their efforts to induce candidates to come forward. Something in the way of utilizing the examinations ought, it was contended, to be done, if the whole thing was not to become a miserable failure. The opinion was expressed that the Intermediate was capable of being turned to good account tf these defects were remedied, while one or two seemed to be of the opinion that there was not much need of reform. The discussion was adjourned, a committee having been appointed to draw up a series of resolutions.

The Convention met again at 2.20, on the 10th August.

The Nominating Committee submitted the following names of officers :—President, Rev. Principal Caven ; Recording Secretary, A. McMurchy ; Corresponding Secretary, J. Hughes ; Treasurer, S. McAllister. The several nominations were unanimously confirmed.

Mr. James Hughes addressed the Convention on the subject of the Council of Public Instruction. He concluded by moving, seconded by Mr. McMurchy, " That a committee consisting of Messrs. Smith, McMurchy, and Dawson, of the High School Section ; Johnson, McAllister, and Alexander, of the Public School Teachers' Section ; McCallum, McIntosh, and the mover, of the Public School Inspectors' Section, be appointed to confer with the Minister of Education with a view to secure the establishment of a Representative Board to advise with him in educational matters."

The discussion on Mr. Lewis' paper, postponed from the previous day, was then resumed.

Mr. McAllister explained that the resolutions he had submitted were the expression of the Public School section, in which they had been thoroughly discussed. They were not his resolutions, but those of the section.

The first resolution referring to the recognition of experience in teaching, was carried.

On the second resolution, proposing to allow candidates the option of taking three examinations to pass,

Mr. Suddaby moved in amendment, " That in the opinion of this Association, it is advisable that candidates for first or second-class certificates be examined in all the subjects at the same time, as heretofore ; that all persons holding third-class papers at the expiration of the three years ; that the Inspector be authorized to extend for one year the certificate of any candidate who, having failed to take a second-class certificate, has nevertheless made per cent. on arithmetic and grammar separately, and per cent on the whole."

This and several other amendments were put and declared lost, and the original motion was then put and carried by 32 to 24.

The remaining resolutions were carried, and the Secretary was instructed to forward a copy to the Minister of Education.

Mr. Hughes' motion in regard to the Council of Public Instruction was then discussed, and finally carried, after several amendments had been moved and lost.

In the evening, Dr. Haanel, of Victoria College, Cobourg, read a most interesting, eloquent, and learned paper on the constitution of matter. He contended against the theory of the continuity of matter, and in favor of its atomic constitution, each atom being a group of indivisible created particles, which he terms ultimates. This view pointed, he alleged, indisputably to the existence of a First Cause.

Dr. May, of the Normal School, was called on by the Chairman to address the meeting. He said he had been appointed by the Government to superintend the Educational Department of Ontario at the Centennial Exhibition, and happy to know

that they had received praise from all sources.

Mr. Mackintosh postponed his paper on the training of third-class teachers till next year.

On the resumption of the debate on Mr. Alexander's resolution on the subject of the revision of text-books being called, the subject was postponed till next year.

It was resolved to meet next year in Toronto.

After several votes of thanks the Convention closed, Mr. McMurchy expressing himself hightly gratified with its success.

In the Public School Teachers' Section, Mr. Dickenson moved, seconded by Mr. McKellar, "That Public School masters and teachers be granted similar representation on the Central Committee of Examiners as they formerly had on the Committees of Public Instruction."

The Chairman after discussion put the motion to vote, when it was lost by 14 nays as against 6 yeas.

The meeting then elected officers of the section as follows :—Chairman, Robt. Alexander, of Galt ; Secretary, H. Dickenson, of Newmarket ; members of Committee, Messrs. Dearness, of London ; Johnston, of Cobourg ; Moran, of Stratford ; Dickenson (the Secretary) ; and Clarke, of Toronto. After some further business the section adjourned.

At the adjourned meeting of the Inspectors' Section, Mr. McCallum was appointed chairman and Mr. McIntosh secretary. The consideration of the General Register question was resumed, and a lengthened discussion took place, in which Messrs. Carlyle, Brown, Stock, Wadsworth, Knight, Dr. Agnew, McIntosh, McCallum, and others took part, and a general opinion was expressed that the present form of the Register was exceptionally faulty. An approved form was then drawn up, and a Committee appointed to present the same to the Minister of Education.

The election of officers for the ensuing year, was then proceeded with, when the following were elected :—President, Mr. J. H. Smith , Secretary, Mr. W. Mackintosh ; Directors— Hodgson (York), Wadsworth (Northumberland), McKinnon, (Peel), McCallum (Hamilton), Knight (Victoria), Strang (Goderich).

In the High School Masters' Section the Committee appointed to draw up a series of resolutions on the Intermediate Examination reported the following, which, after a spirited discussion, were unanimously adopted :—

That in the opinion of the High School Section it is desirable :

1. That having passed the Intermediate Examination should be considered as equivalent to having passed the Junior Pass Matriculation Examination of the University, the examination for a teacher's certificate, and the preliminary examinations for the Law Society and Medical Council, with such modifications as may be deemed necessary.

2. That pupils who have passed the Matriculation Examination of the Universities, or the examination for second-class certificates, shall be considered as having passed the Intermediate Examination next preceding.

3. That the masters be furnished with full information regarding the result of the examination of each pupil in each subject.

4. That the test subjects for the Intermediate Examination be grouped in the following manner :—

I. Arithmetic, algebra, and Euclid.

II. English grammar, composition, and dictation.

III. History, geography, and English literature, and that candidates who obtain 40 per cent. of the total in each group, and not less than 20 per cent. in each subject, shall be considered as having passed the examination.

A resolution was also adopted in favor of increasing the fixed bonus to High Schools from $400 to $500, with a view to saving the weaker schools from extinction. After a brief and very desultory discussion of the High School programme, a resolution was adopted affirming the advisability of consulting the High School masters, through their representatives in the Senate, about any future change which may be made in the curriculum of the Provincial University. —*Condensed from the Globe.*

CHOICE MISCELLANY.

SEEKING A TEACHER FOR LINDA.—She was at one of the union school-houses half an hour before school opened. She had "Linda" with her. She was a tall woman, forty years old, with a jaw showing great determination, and "Linda" was sixteen and rather shy and pretty good-looking. The mother said she hadn't been in the city long, and that it was her duty to get Linda into school and see that she was properly educated. When the teacher came, the mother boldly inquired:

"You know enough to teach do you?"

"I think I do," replied the teacher blushing deeply.

"And you feel competent to govern the scholars do you?"

"Yes'em."

"Do you pound 'em with a ferrule, or lick 'em with a whip?"

"We seldom resort to punishment here," replied the embarrassed teacher.

"That's better yet," continued the mother, "I know that if Linda should come home all pounded up I'd feel like killing some one. I suppose you are of a respectable character, ain't you?"

"Why—ahem—why—" stammered the teacher, growing white and then red.

"I expect you are," continued the woman. "It's well enough to know who our children are associating with. Now then, do you allow the boys and girls to sit together?"

"No ma'am."

"That's right. They never used to when I was young, and I don't think Linda is any better than I am. Another thing: do you allow any winking?"

"Any what?" exclaimed the puzzled teacher.

"Do you allow a boy to wink at a girl?" asked the woman.

"Why no!"

"I was afraid you did. Linda is as shy as a bird, and if she should come home some night and tell me that she had been winked at I don't know what I'd do. Now, another thing: Do you have a beau?"

"Why—why—" was the stammered reply.

"I think you do!" resumed the woman severely. "I know how it works. When you should be explaining what an archipelago is, you are thinking of your Richard, and your mind is way, way off!"

"But, madam—"

"Never mind any explanations," interrupted the woman. "I want Linda brought up to know joggerfy, figgers, writing and spell ography, and if you've got a beau and are spooking to the theatre one night, a candy-pull the next, a horse race the next, and so on, your mind can't be on education. Come Linda, we'll go to some other school-house."—*Detroit Free Press.*

THE SCHOOLMASTER TO HIS SCHOLARS.

My child and scholar, take good heed
Unto the words that here are set,
And see thou do accordingly
Or else be sure thou shalt be beat.

First, I command thee God to serve,
Then, to thy parents, duty yield;
Unto all men be courteous,
And mannerly, in town or field.

Your clothes unbuttoned do not use,
Let not your hose ungartered be;
Have hankerchief in readiness,
Wash hands and face, or see not me.

Lose not your books, ink-horns or pens,
Nor girdle, garters, hat or band,
Let shoes be tied, pin shirt-band close,
Keep well your hands at any hand.

If that thou cry, or talk aloud,
Or books do rend, or strike with knife,
Or laugh or play unlawfully,
Then you and I must be at strife.

If that you curse, miscall, or swear,
If that you pick, filch, steal or lie,
If you forget a scholar's part,
Then must you sure your points untie.

If that to school you do not go,
When time doth call you to the same;
Or, if you loiter in the streets,
When we do meet, then look for blame.

Wherefore, my child, behave thyself,
So decently, in all assays,
That thou may'st purchase parent's love,
And eke obtain thy master's praise.

—*Coote's English School Master, 40th Edition, 1680.*

BOOK NOTICES.

—We have received the following books from A. Miller & Co., Toronto, and recommend them to the profession :—

Fleming's Analysis, with a selection of examination papers from the University and Normal School, by W. Houston, M.A., price $1.

Spaulding's English Literature, with examination papers by W. Houston, M.A., price $1.

Hamblin Smith's Statics, with appendix, by Thomas Kirkland, M.A., Science master Normal School, price 90 cents.

Hamblin Smith's Hydrostatics, 75 cents.

Pott's Euclid, school edition with examination papers, by Thomas Kirkland, M.A., price 75 cents.

Pott's Euclid, Book I. 15 cents.

" " Book I. & III., with examination papers, 20 cents.

Pott's Euclid, Books II. & III., with examination papers, 20 cents.

Reid's English Dictionary, $1.00. An important feature has been introduced in a number of the above, viz : the large selections of examination papers from our Canadian Universities and Normal School. At a time when examinations are of so much importance teachers will do well to see that the above editions are used. Specimen copies for introduction will be sent to teachers on receipt of half the above prices.

—We have received from W. Bryce, Bookseller, London, the following :

The Teacher's Guide, to accompany Bartholomew's Primary School Drawing Cards, by Miss J. H. Stickney; Potter, Ainsworth & Co., New York, Boston, and Chicago. Miss Stickney seems to have succeeded admirably in adapting her lessons to the capacity of young children. Drawing in this little work, is made both a progressive and a pleasing study. The lessons proceed by very easy gradations from the simple to the more difficult. May be had from Mr. Bryce ; price 75 cents.

Patterson's Complete Composition Books, in four numbers ; sold by W. Bryce, London, for 15 cents each. Each book includes instructions and directions in composition suited to the pupil's advancement, a copy book for writing the composition, and a margin with an easy method for the teacher to mark corrections.

Payson, Dunton & Scribner's Penmanship, complete in four numbers. These copy books are so well-known, that we need only call attention to them, and say that they are sold by W. Bryce, London, for 10 cents each.

EDITOR'S DRAWER.

TO OUR READERS.

We take this opportunity of informing our readers, that we have transferred the publication of the "ONTARIO TEACHER" to the publishers of the *Home Companion* of London, and that our connection closes with this No. We are led to do this not because our enterprise has been a failure either in the patronage we have received from the profession, or in the general favor with which our readers have always accepted our humble efforts to contribute to the educational interests of the country. In both of these particulars we may fairly claim that we have met with reasonable and gratifying encouragement. Financially the ONTARIO TEACHER has annually left a small margin. But while this is true we have always felt that publishing as we were in a small town, without the *eclat* always obtained in a large commercial or literary centre, we were laboring under a great disadvantage. Besides, the advertising patronage, which every publisher knows to be the financial life-blood of any periodical, was almost entirely wanting, and

without, it was necessary for the publishers personally to attend to all the routine and details of their work—a duty which entailed so much correspondence and reference, that it seriously interfered with other obligations which could not be set aside. Under these circumstances, with editorial work pressing daily on our attention, and other public duties tasking all our energies, we have decided to transfer the TEACHER to other publishers under such conditions as will not, we trust, be detrimental to our subscribers, nor dishonorable to ourselves. We have taken this course with no ordinary regret. The publication of the TEACHER, and its success, was a source of particular interest. In fact it was a *pet scheme*, which we relinquish because there is a limit to our powers of application. We trust, however, though not directly in communication with the public, as before, still to be heard on many questions of interest which must arise in connection with the educational interests of the country. Much remains yet to be done before our school system is perfected. Teachers have not yet fully felt the dignity and importance of their work. The value of education in it widest sense is only appreciated by the few. "The harvest truly is plenteous," and it is with the profes sion to thrust in the sickle and to gather into the garner those rich results, which a growing country like ours has a right to expect at their hands.

The TEACHER has been transferred to the publishers of the *Home Companion*, on the following conditions: The two journals to be incorporated into one, and to appear under the name of the ONTARIO TEACHER AND HOME COMPANION; the new journal to be uniform in size for binding, and to be 32 pages of closely printed matter, of which sixteen will be educational matter, and the balance good family reading; all subscriptions for the TEACHER now paid in advance, to be supplied to the end of the time paid for. As the *Companion* has hitherto been only 16 pages, its next issue will be enlarged to double the size, and so as not cause loss to the publishers on their old subscribers, but two numbers will be issued for the remainder of this year; the subscribers to the TEACHER will, however, receive the full number of issues for which they have paid. The portion of the two numbers to be issued this year devoted to educational matters will be paged consecutively from our September No., and an index and title page will be given in the December No. Mr. Bigg's valuable history questions, and our own articles on the Centennial will be continued till completed. We trust this arrangement will be satisfactory to our readers, and we have no doubt the publishers of the *Companion* are determined to give them a journal worthy of their continued patronage. In parting with them in our editorial capacity, we cordially thank them for past favors, and earnestly trust the transfer of the TEACHER will only be its entrance on a career of greater prosperity, and more extended usefulness.

All arrears of subscription are to be paid to us. Accounts will be forwarded to those who are indebted, and we trust in each case a settlement will be made with as little delay as possible.

THE TEACHER FOR 1875.—We have a few bound volumes of the TEACHER for 1875, which will be sent post paid to any address on receipt of $1.25.

AUGUST NO.—We have on hand a limited supply of the August No. of the "TEACHER," which we can send post-paid to any address for 15 cents per copy.

ONTARIO FREE MASON—No. 1 of this monthly, published in London, by the Companion Publishing Company is on our table. The initial No. promises well. It is to be the organ of the Grand Lodge of Ontario.

LONDON COMMERCIAL COLLEGE.—We would direct attention to the advertisement of the London Commercial College, and National Training School, on the second page of cover. Mr. R. N. Curry, the Principal is a gentleman who has had a long and very successful career as a teacher, and his students have always been vrey successful in taking teachers' certificates.

LITTELL'S LIVING AGE.—The latest issue of this standard eclectic weekly contains some very valuable articles, among which the following are especially noteworthy:—Lord Macaulay, by the Right Hon. W. E. Gladstone; the Comte de. Paris' Campaign on the Potomac, by the late Col. Chas. Chesney, of the Royal Engineers, being the last paper of that admirable military critic, and especially interesting as an Englishman's review of a Frenchman's account of the Potomac campaign; sketch of a Journey across Africa, by Lt. Cameron of the Royal Navy; In a Studio, continued, by W. W. Story; Autobiography of a Vegetarian, a True Narrative of a Successful Career, by C. O. Groom-Napier, F.G.S.; Modern Warfare, by John Ruskin; Ticknor's Memoirs; a lady's visit to the Herzegovinian Insurgents. There are also other articles of interest, serials by Mrs. Oliphant and Sarah Tytler, and select poetry and miscellany. For fifty-two such numbers, of sixty-four large pages each (or more than 3,000 pages a year,) the subscription price ($8) is low, or still better, for $10.50 any one of the American $4 monthlies or weeklies is sent with the *Living Age* for a year, both prepaid. Littell & Gay, Boston, are the publishers.