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OUR METHODS AND TEXT BOOKS IN ELEMENTARY LATIN.*

BY FREDERIC HEAP, M.A., PETERSBORO, C. I.

IN spite of the announcement that heralds each new Latin book that it has thoroughly modernized the subject up to date, they are all still, I should say, a good many years behind the times. We still have Harkness—that book of silly exercises that would fit you for reading Cæsar just about as soon as memorizing the bones of anatomy would fit you for practising surgery. Leighton's is perhaps some improvement. But still my experience is, after the average year and a half the average boy leaves school and Latin, having read perhaps not a single page of even the simplest Latin author, with little or nothing in fact but a few forms imperfectly memorized and a few grammar rules which he has in no way deduced himself or himself seen illustrated in real actual Latin, and a general dislike and even contempt for the whole subject.

This smallness of progress I trace mainly to the fact that we have not

yet decided upon our aim. Take nearly any Latin primer and if you look closely you may detect two or three or four distinct aims. In parts the aim seems to prepare the pupil to read Latin; in others, to prepare the pupil to write Latin; in a third, to improve, enlarge and strengthen the pupil's English; while in a fourth, the aim, conscious or unconscious, secret or professed, seems to be to train skill and accuracy in the science of grammar. Now while these four aims are to a certain extent compatible, nevertheless, with a scientific and aimful teacher, the methods of attaining such different aims must themselves differ very considerably. As the one key to improvement lies just here in analyzing our aims, choosing the best and then sticking to it firmly and exclusively, I shall endeavour to decide between these four aims and then to show what alterations in our present elementary teaching become necessary. The second and the third aim—to prepare the pupil for writing Latin and to improve, enlarge and strengthen the pupil's English—

* An Address delivered before the Classical Association.

as the least likely of the four, I cannot, for lack of time, treat of at all except incidentally. The ones for special consideration are: the aim of preparing the pupil to read Latin, and the aim of training skill and accuracy in the science of grammar.

As the latter aim is seldom or never professed, and consequently not likely to be sufficiently realized in its meaning and extent on first hearing, I must first at some length point out the surprisingly large part of our elementary Latin that seems to me traceable solely to this aim, and to be eliminated should this aim be dropped.

First.—It is this aim that till very recently has led teachers to insist upon taking up the different parts of the subject in strictly scientific order; first Accidence then Syntax; and in each of these, first the noun, then the adjective, then the pronoun, and lastly the verb. Where the order is rigidly observed what strange, what unLatin exercises have to be manufactured; if, on the other hand, the aim is to read Latin, surely these parts should be so mixed that, from the very outset, the Latin read in the primer shall be the Latin the pupil is afterwards to meet.

Secondly.—The grammatical scientific aim has invariably led, and still, with scarcely an exception, is leading teachers of elementary Latin to insist upon not only the scientific order but also on the scientific method consisting in formal definitions and classifications. Now if the pupil is to merely read Latin, this is as unnecessary as studying English grammar is necessary to his understanding his native English. To read Latin is to get the author's meaning—not to understand the verbal machinery employed for its expression. If the aim is to read Latin the best method is the Empiric method, not the Scientific method. For example, tell the pupil

that "batur" means "he was being praised, advised, etc."; don't at this point make him study the nature of tenses or their classification into tenses expressing completed action and tenses expressing incomplete action; possibly it is too early for even the technical names of the tenses. This latter is exceedingly sharpening and educative; but if the aim is to read Latin it is quite unnecessary. Indeed, it is a hindrance. Take two boys taught, the one in one way and the other in the other, and ask them to translate "Vincebantur." While the one is asking himself, "What tense is this?" or "What kind of time is this?" or "What voice is this?" or perhaps, "What mood is this?" The other, by his rule of thumb, says, "Vinco—conquer;" "bantur—they were being;" "Vincebantur—they were being conquered." Though by a certainly less educative process the latter boy has got the meaning practically as fully and accurately as the former and in much less time. Since then the grammatical method is not necessary as a means to attaining the reading aim, and in this case is even a hindrance, how important it is that we should no longer combine the two aims and methods, but should at once decide between them and then confine ourselves strictly to the one of our choice. Similarly of what help for reading purposes is Leighton's elaborate classification of conjunctions as co-ordinate—five classes; and subordinate—eight classes. Or again, the wordy explanation of the difference in nature and use between a participle and a finite verb—a difficult point, which is at this stage best disposed of by the simple dogmatic rule: Translate "Laudatus"—having been praised, or after he had been praised; "Laudatus est"—he was or has been praised. So too with the ablative absolute. No need just yet

to show it to be non essential to the simple statement; merely tell the pupil to translate the ablative under the circumstances as though in the nominative; nor need it be added that the construction expresses time, cause, manner, and means, concession, condition or attendant circumstances. Again, in teaching the gerund and the gerundive, unless your aim is scientific fulness and accuracy, don't teach the latter as the future participle passive, and don't try to translate them literally, especially seeing that these points are in such dispute among scholars. The rule for translation is sufficient: Render, first, the nominative or (without a preposition) the accusative by "eo and so must be praised, etc."—if of the gerundive; "he (we, etc.) must obey, etc."—if of the gerund. Second, the genitive, dative, and ablative of either by "of praising or obeying," "to or for praising or obeying," "with from or by praising or obeying." Besides these points of syntax there are at least two forms that are taught, it must be, solely for the sake of scientific completeness, being almost useless for ordinary reading purposes. I mean the imperative mood and the vocative case. Both of these are, to say the least, exceedingly scarce outside Leighton, Harkness, etc. I don't think we have met a single instance of either in our two books of Cæsar. Even if there is one, is the pupil to be compelled, by its recurrence in his exercises, to carry it in his memory from away back at page 74 in Leighton? The imperative mood and the vocative case are necessary to a just and comprehensive view of Latin grammar; they are not necessary to reading Cæsar. I have yet to speak of the two most important subjects in which the grammatical aim appears dominant. The one is the use of the cases, the other the use of the subjunctive.

In both, if the reading aim is the one proposed, much of the formal classification and definition invariably given may be dispensed with at first. As for the former—the uses of the cases—it is sufficient to tell the pupil first, that, generally speaking, the genitive is to be translated "of so and so;" the dative, "to or for;" the ablative, "with, from or by;" that often, however, a different preposition has to be used. Second, as the way to decide the right preposition on any occasion, the pupil must always ask himself a certain question: "Vir summo ingenio—what has the great ability" to do with "the man?" "A man?" "of great ability," "possessed of," "with," "having;" any preposition whatever that will express the relation. This relation or meaning I find they see clearly and readily enough, even though, perhaps, they can't always name it exactly. Similarly with "profectus est Romam." What has "Rome" to do with his setting out?

Knowing that "from" requires the ablative, no pupil will go astray. "Differunt inter se legibus institutisque" if they apply their stock question they will easily translate this; and they will be anything but helped in translating by being told and required to remember that this is "the Ablative of Respect or Specification," and by then being led to put this along with the other uses of the accusative in a formal classification to be thoroughly memorized. Then "Longam vitam vixit," or "Ciceronem consulem creaverunt." Why, if mere reading is the end and object, why spend time bringing the pupil to see and name them as "the Cognate Accusative—the double accusative of two persons?" Solely, it must be answered, in order to develop grammatical skill. Lastly, the uses of the subjunctive. Leighton, after telling the pupil that the subjunctive is used

to express an action or condition conceived of as a possibility rather than as a fact, goes on to enumerate nine different kinds of clauses requiring the subjunctive, and then takes over fifty pages to explain and drill these. Here again, if the aim is to prepare for reading Latin, how much might the teaching be lessened? Translate the subjunctive just as the indicative, tense for tense; this simple rule, dogmatically given, and empirically applied, will carry the pupil through all the subjunctives he will meet—the "ut," consecutive; "quum," temporal, causal, concessive; "quis quantus," etc., as dependent interrogatives, and the whole host of subjunctives due to indirect discourse—all except two, "ut," and "ne" final, and the "si" conditional. Tell the pupil to translate the first by "In order that he may (not)" if present, "In order that he might (not)" if imperfect: the second by "If he were to do," when present; "If he were doing," when imperfect; and "If he had done," when pluperfect. The sequence of tenses in the first exception, and the different forces "si" has, with the different tenses in the second, need not be studied at all at this stage.

Having thus seen the nature and extent of each we must now decide between these two aims. I, for my part, as I may perhaps have already inadvertently shown, declare for the aim of preparing pupils to read Latin. Surely Latin has something better than to offer a student than grammatical skill and insight. Surely whatever purpose it serves, Latin is to be studied for its own sake—for the sake of reading the Latin literature. Few of you, I believe, value more highly than I do the mental training acquired by the grammatical study of Latin. I simply place it second. Besides, even if it were first in importance, I should yet place it second

in order of study. Scientific grammatical knowledge can never be satisfactory unless constructed and illustrated from a thorough empirical acquaintance. Again, the road to the scientific knowledge, if thus postponed to a reading course, becomes thereby also pleasanter and shorter. For what a wide and interesting field is left open to the pupil for self-teaching, observation and inference. No matter then which stands first in importance, the order of study should be: first, read; then, construct the grammar.

If the preparation of the pupil for reading Latin is to be the sole, or at least the supreme object, in elementary Latin, in general three changes must be made. First, much now taught must be omitted. Leighton, with his mixed aim, has 350 pages. Comstock, with the simpler aim we propose, prepares the pupil to read in 100 pages; while a third American named Whiton professes to do so in 35 pages, or six weeks. While perhaps the last is too short—I'm by no means sure—still I'm very confident that the course preparatory to reading can be safely reduced by at least one-half. Second, from the very start the primer Latin must be in several respects more really Latin. Third, the order of taking up the different parts of the subject must be changed.

Of the things to be omitted, the first class consists of the points already referred to where the sole aim in view is grammatical skill and insight: The forms of the imperative mood and the vocative case, and the use of the cases (particularly the ablative absolute) and of the moods and tenses (particularly the subjunctive, gerundive and participles), and in this class, without any further explanation, I may add the resumé of English grammar which Leighton prefaces to his book. There is a second class of

things to be omitted in an elementary Latin book. I mean those words and forms which are sufficiently explained in the ordinary vocabulary, and those rules of syntax which are easily enough understood by the pupil himself when met in actual reading: First, unnecessary words and forms—"Mensarum"—the vocabulary says only "mensa mensæ, a table." We must learn the meaning of this ending, "arum." But the numerals, cardinals, ordinals and distributive, why require the pupil to prepare these beforehand? And why the formation of the three degrees of the adverb: "fortiter," "fortius," "fortissime," are all given in the vocabulary? To be sure English-Latin exercises could not be done without the rule of formation; "bravely," "more bravely," "most bravely" are not given in the English-Latin vocabulary, but the aim at this stage is Latin-English not English-Latin translation. Even if "fortiter," "fortius," and "fortissime" were not given, teaching the pupil to merely recognize forms can and should be made much shorter and simpler than the present custom of teaching him to form them. Similarly with the comparison of adjectives. Lastly, the two pronouns "iste" and "idem," what peculiarity of either form or use is there, that the ordinary pupil would not be equal to, provided he knew "ille" and "is"? Second, the points of syntax to be omitted. The presence and absence of "ab" in the expression of agency and instrumentality respectively, the absence of "ad," "ex," and "ab" with the names of towns and cities, and the case construction of "utor," "potior," etc., of "doces," "posco," etc., and of "dignus," "indignus," etc., etc.; all these rules the pupil should be left to recognize and formulate for himself. Then he may practise the rule by English-Latin exercises. Similarly at this stage,

Why more than the most passing notice of the gender rules? The gender of each Latin word is given in the vocabulary, and this is quite sufficient for the immediate object. English-Latin exercises I will speak of later. I would use them and use them abundantly, but, at this stage, only a limited kind.

As I pass from this partial and merely typical list of things to be omitted, let me again say that the change I propose is entirely one of order and method. Pupils in the long run by the time, say, of their matriculation, are to get up just about so much grammar, and just about as much composition as at present, but at a different time—during and after reading instead of before reading; and in a different manner—by personal observation and inference instead of by passive reception from the teacher or the grammar. Let the primer give grammar and composition certainly, but let it reserve them for the back of the book so as not to unnecessarily impede the path of reading.

If the fruit bearing stage is to be reached as early as possible, not only must we omit many things not necessary for reading Latin, but we must also, in what we decide to retain, be guided more by the character of the Latin the pupil will afterwards read. First, the vocabulary should be thoroughly Cæsarian from start to finish. What a cruel leap we used to find it to Cæsar from Harkness' or Arnold's "Balbus sees the goat and the goat sees Balbus," or "Balbus strikes the head of the daughter of the good judge." Second, from start to finish the order of words in sentence should be equally Cæsarian. As for translating the words exactly in the order in which they stand—a thing so essential to proper appreciation—while Hale's method is perhaps somewhat impracticable with younger pu-

pils, particularly in Cæsar, and had better in places be mixed with the old method for hunting for, first, the verb and then the subject and so on, still I have by no means made up my mind against it, especially if it is taken up early, rigidly and systematically. At any rate pupils should not be allowed to get the idea that construction is a sort of Chinese puzzle—pick here and you get it, pick there and you don't get it. Third, it seems unnecessary to say that a Latin primer should use parts in the common way and with the common meaning. Nevertheless it is a fact that throughout his whole book Harkness tells and drills the pupil, as its regular meaning, to translate the subjunctive by "he may," "he might," "he may have," "he might have." As a result, just the other day in a written examination from a matriculation candidate who tried the matriculation last July, I had "quum jussissent" translated "after he might have ordered." Similarly with the infinitive. The most faithful student in Harkness would be simply helpless before the infinitive in its commonest use—with the accusative after verbs of saying and thinking, etc. He has learned only the meaning it has after the comparatively small class of model verbs. The same is true of the nouns. Through the greater part of the book none but the meanings "of," "to," or "for," etc., are given for the various cases, and these quite uncorrected with the necessary qualifications so as to become positively misleading. At the very end of the book, beginning at page 122, the proper uses are hurriedly gone through, but not early enough or thoroughly enough to really correct the long deep-seated misapprehensions. Fourthly and lastly, the attention, in the way of explanation and drilling, given to the different parts of accidence and syntax, must be better proportioned to the relative

commonness of these parts in actual Latin. In elementary Latin there are two things of prime importance—the declension and concord of nouns and adjectives, and the forms and uses of the verb. Neither of these are really sufficiently drilled. Leighton, for example, who in general is too simple, too short, and too few in his exercises, is particularly so in one part of the verb. The gerund and gerundive, the participles and the infinitives, both forms and uses, are all hurried off together with two short exercises and two sight passages in less than fifteen pages; and as is the case in other parts as well, they are not particularly reverted to or kept in review afterwards. Too much drilling on the nouns and verbs is simply impossible, I care not how dull it may be. This is the place for English-Latin exercises; besides their value as a means of drill it has often seemed to me that they are specially useful in acting as a sort of cold corrective to impatient headlong guessing in the Latin-English exercises. Impromptu oral exercises too are particularly adapted to this work; indeed, large parts of Leighton's exercises are too simple altogether for written home work and had better be left for impromptu oral drilling. In drilling the nouns the preposition is exceedingly convenient. Besides an almost infinite amount of combined declension, the case endings of the different declensions should be tabulated and memorized for all eternity, both vertically and horizontally; and the pupil should be required first to note, then to memorize, the different cases a given ending may be and the different nominatives from which it may come. Finally, two minor ways in which the relative importance of parts may be better observed: the one, by giving less attention to adjectives in "er" than to the altogether commoner classes in "us" and

"is"; the other, by taking Leighton's suggestion and regarding the last of the four principal parts of the verbs as the perfect participle passive, not as the supine which then need hardly be mentioned at all in a primer.

Besides omitting many parts of the present primer, and making the remaining parts more really Latin, we who confine ourselves to the reading aim must also make several changes in the order of taking up the different parts of our subject. The present order, as has elsewhere been said, is

the grammatical scientific order and is the cause of the ridiculously simple and unLatin character of the exercises in most of our Latin primers. In general, accidence and syntax must be taken up side by side, and in each the verb must be introduced very much earlier than at present. Just exactly where—whether after some one of the five declensions or before them all, or whether interspersed in alternate lessons through them all—while a nice and interesting question is not one of any great importance.

RETROSPECT.*

AS the chief servant of the Canadian Institute I am asked to address you. We are a body of students, principally of mature age, who work for the love of knowledge and can scarcely be called a teaching body, though, when our studies seem to reach a noteworthy result, we embody them in papers which we read and publish, receiving in exchange the similar transactions of hundreds of other societies throughout the world. Yet we cannot but feel a warm interest in schools such as this, whence came the lads who will in years to come take the places in science we now occupy, and will occupy them, let us hope, more worthily.

We live in a revolutionary period—one in which changes happen so rapidly that they remind us of the kaleidoscope. I was reading only the other day in the Simcoe papers, just published by the Archives branch at Ottawa, that the Bishop of Quebec, visiting his diocese, went from Que-

bec through Montreal and Kingston to Niagara, returning by the Bay of Quinté. He writes, that from Montreal to Kingston there is not one church or place of worship, except one Lutheran chapel, and one, perhaps two, Presbyterian. A small church at Kingston. At Niagara, a minister but no church. He suggests good grammar schools, instead of the expensive system of education prepared by the Council (showing that as yet there was no system). Should it be thought expedient to send clergymen and a schoolmaster to Upper Canada, the Bishop of Lincoln might be consulted in the appointments. Yet this was in 1794—not a hundred years ago, and now we have over two millions of people in Upper Canada (Ontario), two hundred thousand in Toronto; schools in every hamlet—almost at every cross-roads; and three Collegiate Institutes in Toronto, besides the Upper Canada College, which is similar to them.

If we were to look at the textbooks in use in our schools and compare them with those which early in the century were introduced among us, we should find a still more startling change. There would be no

* An address by Arthur Harvey, Esq., President Canadian Institute, Toronto, at the formal opening of Collegiate Institute, Harbord Street, Toronto.

reference to railways or steamers, nothing about the telegraph or telephone, nothing about photography. Since that period, aye, even within my own lifetime, there has been revealed a new Astronomy which makes our world kin with the glorious glowing sun and with the millions of stars which gem the firmament. We have a new Geology which tells us how our habitation has been built up and has developed from the time when it was without form and void. We have a new Geography, with two continents newly added to the explored area of the world, and, on the physical side, quite new theories of air and earth and ocean. Natural History has been re-written, new light shown on the methods of creation or laws of development. Chemistry has wonderfully progressed, and by the aid of optics tells us now the composition of the lamps of heaven.

It is scarcely to be wondered at in view of such almost romantic achievements in science, that there should be among parents a great desire that their children should be able to appreciate them, yea, and be able to carry them on to the yet dizzier heights that will soon be scaled. And since science has been found to be the handmaiden, not only of the arts of peace but of those of war too, witness the rifle, the armour plate, the torpedo, the dynamite gun, the artificial clouds, the observing balloon, there is little wonder that the State wishes its youth to be well instructed, since mental power, rather, perhaps, than physical—gives a nation victory over its foes.

Yet sometimes I wonder if the thirst for learning, which in this second Renaissance has spread from Germany to Japan, from Roumania to Australia and the furthest ends of our continent, is not leading us into excess; if, indeed, book learning be not sought after to the detriment of

agricultural skill and of a due knowledge of the mechanic arts. If, in fact, we are not breeding a race of scholars, instead of well-balanced communities of co-workers in all the essential elements of healthy commonwealths.

Again, the idea will force itself upon me that when parents and the State provide as they do for universal education far beyond the requirements of an average household, it is as much as to say to the lads, "Get taught so that we may benefit." Do children get the idea that because learning is flung at them in great bucketsful, it is therefore a pearl of small price, scarcely worth the picking up? In my early days, when parents had to make great sacrifices to ensure good teaching to their children, it seems to me there was an intenser striving to benefit by their sacrifices, and it also followed that a child with no aptitude for study was early set to some trade or other honourable calling in which he was more useful to the world than in the realm of letters.

I am inclined to think, too, that while our teaching and learning has become more widespread, it is not so thorough as it was of yore. It may be necessary to specialize to reach the top in any given line, but this specializing is begun too early. Even here, in an institution of secondary instruction, its baneful influence is felt, while at the universities, not only here but elsewhere, it becomes so strained as to lead to the narrowing of mental calibre, and the production of monstrosities rather than well built-up men and women.

Where have we among us now men as familiar as those who have but lately gone to their rest with those masterpieces of literature—the sacred Scriptures? An old timer like myself quotes a biblical text or instance, and but few understand the allusion!

We have a million and a half of compatriots speaking French. How many in this room could understand them or reply in that most graceful of languages? Do we realize that there can be no liberal education without a knowledge of several languages—each of which almost doubles our power of appreciation and enjoyment?

Probably the brutal, Philistine, scientific specialization of the day proceeds from the idea "learn that you may make money and get on in the world." We should eschew that vulgarity and learn for learning's own

sake. The rest will probably come. Wisdom, says Solomon, guides you in right paths, shows you the kingdom of God, and renders to the righteous a reward of their labours. Let me beg of you, lads, to weigh these words, for in them is comfort, contentment and peace. These are the rewards of the diligent. And with such fine opportunities as are given here by the State, the city, the Board of Trustees, the teachers—if you neglect them—then if there be any such thing as Free Will, the sin will be on your own heads.

THE CULTURE OF THE INTELLECT.

BY PROF. J. S. BLACKIE.

Es ist immer gut etwas zu wissen.—GOETHE.

IN modern times instruction is communicated by means of books. Books are no doubt very useful helps to knowledge, and in some measure, also, to the practice of useful arts and accomplishments; but they are not, in any case, the primary and natural sources of culture, and, in my opinion, their virtue is not a little apt to be overrated, even in those branches of requirement where they seem most indispensable. They are not creative powers in any sense; they are merely helps, instruments, tools, and even as tools they are only artificial tools, superadded to those with which the wise prevision of Nature has equipped us, like telescopes and microscopes whose assistance in many researches reveals unimagined wonders, but the use of which should never tempt us to undervalue or to neglect the exercise of our own eyes. The original and proper sources of knowledge are not books, but life, experience, personal thinking, feeling and acting.

When a man starts with these, books can fill up many gaps, correct much that is inaccurate, and extend much that is inadequate; but, without living experience to work on, books are like rain and sunshine fallen on unbroken soil.

The parchment roll, is that the holy river
From which one draught shall slake the
thirst forever?

The quickening power of science only he
Can know, from whose own soul it gushes
free.

This is expressed, no doubt, somewhat in a poetical fashion, but it contains a great general truth. As a treatise on mineralogy can convey no real scientific knowledge to a man who has never seen a mineral, so neither can works of literature and poetry instruct the mere scholar who is ignorant of life, nor discourses on music him who has no experience of sweet sounds, nor gospel sermons him who has no devotion in his soul or purity in his life. All knowledge which comes from books, comes indirectly, by reflection, and by echo;

true knowledge grows from a living root in the thinking soul; and whatever it may appropriate from without, it takes by living assimilation into a living organism, not by mere borrowing.

I therefore earnestly advise all young men to commence their studies, as much as possible, by direct observation of facts, and not by the mere inculcation of statements from books. A useful book was written with the title, "How to Observe." These three words might serve as a motto to guide us in the most important part of our early education—a part, unfortunately, only too much neglected. All the natural sciences are particularly valuable, not only as supplying the mind with the most rich, various and beautiful furniture, but as teaching people that most useful of all arts, how to use their eyes. It is astonishing how much we all go about with our eyes open, and yet seeing nothing. This is because the organ of vision, like other organs, requires training; and by lack of training, and the slavish dependence on books, becomes dull and slow, and ultimately incapable of exercising its natural function. Let those studies, therefore, both in school and college, be regarded as primary that teach young persons to know what they are seeing, and to see what they otherwise would fail to see. Among the most useful are Botany, Zoology, Mineralogy, Geology, Chemistry, Architecture, Drawing and Fine Arts. How many a Highland excursion and continental tour have been rendered comparatively useless to young persons well drilled in their books, merely from the want of a little elementary knowledge in these sciences of observation.

Observation is good, and accurate observation is better; but, on account of the vast variety of objects in the universe, the observing faculty would be overwhelmed and confounded, did

we not possess some sure method of submitting their multitude to a certain regulative principle placing them under the control of our minds. This regulative principle is what we call classification, and is discoverable by human reason, because it clearly exists everywhere in a world which is the manifestation of Divine reason. This classification depends on the fundamental unity of type which the Divine reason has imposed on all things. This unity manifests itself in the creation of points of likeness in things apparently the most different; and it is these points of likeness, which when seized by a nicely observant eye, enable it to distribute the immense variety of things in the world into certain parcels of greater or less compass, called genera and species, which submit themselves naturally to the control of a comparing and discriminating mind. The first business of the student, therefore, is, in all that he sees to observe carefully the points of likeness, and, along with these, also the most striking points of difference; for the points of difference go as necessarily along with the points of likeness, as shadow goes along with light; and though they do not of themselves constitute any actual thing, yet they separate one genus from another, and one species of the same genus from another.

The classification or order to be sought for in all things is a natural order; artificial arrangements, such as that of words in an alphabetical dictionary, or of flowers in the Linnean system of botany, may be useful helps to learners in an early stage, but if exclusively used, are rather hindrances to true knowledge. What a young man should aim at is to acquire a habit of binding things together according to their bonds of natural affinity; and this can be done only by a combination of a broad view of the general effect, with an

accurate observation of the special properties. The names given by the common people to flowers are instances of superficial similarity, without any attempt at discrimination, as when a water-lily seems by its name to indicate that it is a species of lily, with which flower it has no real connection. A botanist, on the other hand, who has minutely observed the character and organs of plants, will class a water-lily rather with the papaverous or poppy family, and give you very good reasons for doing so. In order to assist in forming habits of observation in this age of locomotion, I should advise young men never to omit visiting the local museums of any district, as often as they may have an opportunity; and when there to confine their attention generally to that one thing which is the most characteristic of the locality. Looking at everything generally ends in remembering nothing.

Upon the foundation of carefully-observed and well-assorted facts the mind proceeds to build a more subtle structure by the process which we call reasoning. We would know not only that things are so and so, but how they are, and for what purpose they are. The essential unity of the Divine mind causes a necessary unity in the processes by which things exist and grow, no less than a unity in the type of their manifold genera and species; and into both manifestations of Divine unity we are, by the essential unity of our divinely emanated human souls, compelled to enquire. Our human reason, as proceeding from the Divine reason, is constantly employed in working out a unity or consistency or plan, to speak more popularly, in the processes of our own little lives; and we are thus naturally determined to seek for such a unity, consistency and necessary dependence, in all the operations of a world which exists only, as has been

well said, "in reason, by reason and for reason."* The quality of mind which determines a man to seek out this unity in the chain of things is what phrenologists call causality; for the cause of a thing, as popularly understood, is merely that point in the necessary succession of divinely-originated forces which immediately precedes it.

There are few human beings so contentedly superficial as to feed habitually on the knowledge of mere unexplained facts; on the contrary, as we find every day, the ready assumption of any cause for a fact, rather than remain content with none, affords ample proof that the search for causes is characteristic of every normal human intellect. What young men have chiefly to look to in this matter is to avoid being imposed on by the easy habit of taking an accidental sequence or circumstance for a real cause. It may be easy to understand that the abundant rain on the west coast of Britain is caused by the vicinity of the Atlantic Ocean; and not very difficult to comprehend how the comparative mildness of the winter season at Oban, as compared with Edinburgh or Aberdeen, is caused by the impact of a broad current of warm water from the Gulf of Mexico.

But in the region of morals and politics, where facts are often much more complex, and passions are generally strong, we constantly find examples of a species of reasoning which assumes without proving the causal dependency of the facts on which it is based. I once heard a political discourse by a noted demagogue, which consisted of the assertion, in various forms, and with various illustrations of the proposition that all the miseries of this country arise from its monarchico aristocratic

* Stirling on Protoplasm.

government, and that they could all be cured, as by the stroke of a magician's wand, by the introduction of a perfectly democratic government—a species of argumentation vitiated, as is obvious all through, by the assumption of one imaginary cause to all social evils, and an equally imaginary cure.

In the cultivation of habits of correct reasoning, I would certainly, in the first place, earnestly advise young men to submit themselves for a season, after the old Platonic recipe, to a system of thorough mathematical training. This will strengthen the binding power of the mind, which is necessary for all sorts of reasoning, and teach the inexperienced really to know what necessary dependence, unavoidable sequence, or pure causality means. But they must not stop here; for the reasonings of mathematics being founded on theoretical assumptions and conditions which, when once given are liable to no variation or disturbance, can never be an adequate discipline for the great and most important class of human conclusions, which are founded on a complexity of curiously acting and reacting facts and forces liable to various disturbing influences, which even the wisest sometimes fail to calculate correctly. On political, moral and social questions, our reasonings are not less certain than in mathematics; they are only more difficult and more comprehensive; and the great dangers to be avoided here are one-sided observation, hasty conclusions and the distortion of intellectual vision, caused by personal passions and party interests. The politician who fails in solving a political problem fails not from the uncertainty of the science, but either from an imperfect knowledge of the facts, or from the action of passions and interests, which prevent him from making a just appreciation of the facts.

At this point I can imagine it is not

unlikely that some young man may be inclined to ask me whether I should advise him, with the view of strengthening his reasoning powers, to enter upon a formal study of logic and metaphysics. To this I answer, by all means, if you have first, in a natural way, as opposed to mere scholastic discipline, acquired the general habit of thinking and reasoning. A man has learned to walk first by having legs, and then by using them. After that he may go to a drill-sergeant and learn to march, and to perform various tactical evolutions, which no experience of mere untrained locomotion can produce. So exactly it is with the art of thinking. Have your thinking first, and plenty to think about, and then ask the logician to teach you to scrutinize with a nice eye the process by which you have arrived at your conclusions. In such fashion there is no doubt that the study of logic may be highly beneficial. But as this science, like mathematics, has no real contents, and merely sets forth in order, the universal forms under which all thinking is exercised, it must always be a very barren affair to attempt obtaining from pure logic any rich growth of thought that will bear ripe fruit in the great garden of life. One may as well expect to make a great patriot—a Bruce or a Wallace—of a fencing-master, as to make a great thinker out of a mere logician. So it is in truth with all formal studies. Grammar and rhetoric are equally barren, and bear fruit only when dealing with materials given by life and experience. A meagre soul can never be made fat, nor a narrow soul large, by studying rules of thinking. An intense vitality, a wide sympathy, a keen observation, a various experience, is worth all the logic of the schools; and yet the logic is not useless; it has a regulative, not a creative, virtue; it is useful to think-

ing as the study of anatomy is useful to painting ; it gives you a more firm hold of the jointing and articulation of your framework ; but it can no more produce true knowledge than anatomy can produce beautiful painting. It performs excellent service in the exposure of error and the unveiling of sophistry ; but to proceed far in the discovery of important truth, it must borrow its moving power from fountains of living water, which flow not in the schools, and its materials from the facts of the breathing universe, with which no museum is furnished.

So it is likewise with metaphysics. This science is useful for two ends, first—to acquaint ourselves with the necessary limits of the human faculties ; it tends to clip the wings of

our conceit, and to make us feel, by a little floundering and flouncing in deep bottomless seas of speculation, that the world is a much bigger place than we had imagined, and our thoughts about it of much less significance. A negative result this, you will say, but not the less important for that ; the knowledge of limits is the first postulate of wisdom, and it is better to practise walking steadily on the solid earth to which we belong, than to usurp the function of birds, like Icarus, and achieve a sorry immortality by baptizing the deep sea with our name. The other use of metaphysics is positive ; it teaches us to be familiar with the great fundamental truths on which the fabric of all the sciences rest.—*The Teacher.*

COMMERCIAL GEOGRAPHY.

BY L. W. LYDE.*

COMMERCIAL Geography may be roughly described as “a study of the earth from the standpoint of the intelligent merchant.” It is the office of commerce to organize all the conveniences and commodities of earth, air and sea, that affect human life. Human life has various wants ; and where these wants exist, is a market. Geography enables you to find satisfaction for them.

Commercial Geography is the science which tells you where commodities are found, the conditions under which they can be found, where they are wanted, the ease or difficulty of taking them to such places, and the character of the demand for them. Ignorance of these things is, according to our foreign Consuls, more and

more placing our traders at a grave disadvantage ; and Commercial Geography is the only science which can remove such ignorance.

The requisites for the study of this science are a Globe, a Physical Atlas and a Relief Atlas ; and I may add that the grossest exaggerations in Relief are a very slight blemish, and do not really affect the value of the map for giving a correct idea.

We must have, to start with, a thorough understanding of the shape and motions of the earth so far as they affect climate and movements of wind and water, and a rough knowledge of the distribution of land and water in large masses. This involves reference to surface—which is naturally divided into level and slope—and the effect on both of these of wind and water, alone and combined.

In dealing with a particular coun-

* In *The Oxford University Extension Gazette.*

try we need to examine also its Latitude—or “Angle of divergence from the Equatorial plane”—and its surroundings. These give us the probable climate, prevailing winds, means of defence, and facilities for commerce. If the surroundings are sea, a special study ought to be made of the particular sea—its oceanic connection, its winds, its depth, its coasts, its rainfall, the number and volume of its rivers, and the temperature over it. In the case of an inland sea, we ought further to enquire into its level, its connection with any other sea, and the existence of any currents in or out. In the case of a badly situated sea, like the Caspian, we must also enquire into the kind, quality and supply of steam-fuel.

In considering the surface of a particular country, the watershed is much the most important feature; and special attention should be devoted to any rivers that run against the lie of the country, as they will be the most useful in some ways. They will be no use for navigation; but they will bring down more alluvial matter, lay bare more metal and mineral, and be more valuable for electrical and other “motive” purposes.

As the discovery of metals depends so largely on the amount and the force of the rainfall—especially in new countries, which are also the least deforested—and, as the kind of metal depends on the age and nature of the rocks, we need some knowledge of Meteorology and of Geology (especially in reference to coal).

The character of the rocks will lead on to the character of the soil at their base, and their position and height will be a guide to the temperature and water-supply. These two, with the soil itself, will at once indicate the kinds of vegetable products which could be grown in the place; and the only remaining questions are: What markets are at hand? In what

condition must the commodities be placed in them? What facilities are there for reaching them?

We may then proceed to a classification of wants. This involves the questions of population and the distribution of industry and intelligence; and we shall have to distinguish real from acquired wants, and national from natural boundaries.

One or two short illustrations may serve to elucidate the matter.

Take the question of Chinese labour in Australasia. With the Chinaman fish is an “acquired” necessity; and—apart from any Chinaman—the commercial products of the sea are of first rate importance, because an acre of sea is infinitely more productive than an acre of the richest land. For instance, the average crop of wheat per acre in the world is seventeen bushels—call it half a ton; seventeen tons of fish have been caught in one night by five boats over fifty acres of sea. However, the Chinaman at home spends his time—by day and by night, with every kind of line and net and boats, and with every imaginable device and decoy, animate and inanimate—in fishing and eating fish. Now the general idea that the Australasian waters are very badly supplied with fish is quite erroneous; but reasonable precautions with regard to season and situation must be taken, and fish found in the colder waters are the more edible. If, then, the Victorian fisheries are to be greatly developed, there arises an absolute necessity for a uniformity of inter-colonial railway gauge to prevent delay and transference of carriage. That the present conditions are prohibitive of the development of any fresh fish industry may be conclusively gathered from a comparison of the English fish trade before and after the construction of the Eastern Counties Railway. I may add the suggestion that the importance of

marine industry in relation to commerce and to defence as well as to food and to agricultural science, is too much taken for granted in this country. In France over half a million francs a year are spent on bounties to fishermen !

A very different sort of question is involved in the proposed Hebrew colonization of the Argentine. The most remarkable fact in the sociological history of the Hebrews is that—in spite of the unique advantages of Palestine as the centre of the three great continental caravan routes of the old world—it took ages to force them into commerce. Wherever the conditions of life allowed it, they took to farming, even in their dispersion ; Succoth was still remembered as the most joyful of all the feasts ; and only stern inhumanity drove them from the field to the counting-house. The Plate trade is essentially wool, animals and grain, though the country contains the necessary supplies of coal and iron and of the precious metals. The conditions of life are physically perfect ; the isotherm of Buenos Ayres is 60° ; the defence of the country is extremely easy : and the approach by sea is unrivalled. What is needed is security for commerce, including banking and insurance confidence and facilities, better communication by steam and electricity with Europe, and colonists who combine industry and intelligence with the mercantile instinct.

The presence of the Hebrews there would open new markets for us, if we would adapt our goods to their requirements—a thing which British traders are not too ready to do. The raw wool would, in any case, go to London, because from its geographical position in the mathematical centre of the land of the world London commands all the wool of the world to its auctions (nine-tenths of it to be re-exported) ; but how about the yarn ?

In all probability, I think, when the Plate merchants begin to try to spin on the spot, they will find that, although the S. E. Trades supply enough hurricane rain to produce the required crops, the climate—like that of Queensland, which has the same rainfall—is too dry for the yarn. Where will it be sent? To Britain or to Germany. The Germans have no colonial instinct, which is the product only of years of colonization ; but they are our most formidable rivals in Europe because they have a marvellous knowledge of Commercial Geography, and because they work under such similar conditions. What Germany lacks in coast accommodation, she makes up by her rivers ; and her physical features give her the same agricultural and manufacturing occupations as we have. The Ruhr valley does the work of Clydesdale ; Chemnitz is the Saxon Manchester ; the Erz and Riesengebirge represent the Mersey and Humber flanks of the Pennine Range. Germany carries on nearly every trade that we do, with the addition of sugar, wine and tobacco ; and, as her only sea-coast is in the N., and her only open sea-ports are in the N.W., her goods must seek markets in the same direction as ours do. The only point of distinct advantage to us is that the Thames is much freer from ice than the Elbe, and has unique tidal conditions.

Not that the Thames trade is flourishing at present. It has none of the accidental restrictions which, for instance, gave birth to the remark that “Venezuela is an excellent place for business, if it will only keep still” ; but it suffers severely from the artificial restrictions of the McKinley Tariff Act and the disturbance of commercial confidence by strikes. The effect of the Tariff Act may be seen in the fact that the steamers which last year were refusing cargo, are now leaving

dock half empty; and consequently the Allan liners, having finished their St. Lawrence service for the season—instead of being put on the New York trade, as usual, have been put on a new service between London, New Orleans and the Mediterranean.

Space forbids more detail. I will simply add three things, speaking from experience only of boys and workmen. Geography thus treated supplies a knowledge of facts which is essential to, and does command, commercial success, even in a small sphere; the interest aroused causes a very large number of names

to be remembered without any conscious effort; and—by this method we give a really scientific training. The constant reference to the Physical Atlas, the continuous application of known conditions to new cases, the necessary verifications from the newspaper daily reports (which in *The Glasgow Herald* are admirable), the perpetual procedure by cause and effect, the amount of observation and experiment required, develop an inductive habit of thought which is as valuable for life in general as it is for the special business of a merchant trading in every sea.—*The Teacher.*

SOME WAYS IN WHICH COLLEGES MAY HELP SECONDARY SCHOOLS.

ISAAC THOMAS, PRINCIPAL OF HILLHOUSE HIGH SCHOOL, NEW HAVEN, CONN.

(Continued from *May Number.*)

I DESIRE next to give some examples from actual experience of the way in which boys may be, and are, prepared to pass the college entrance examination. A year or two ago a young man came to a certain teacher in New Haven ten days before examination to be tutored in plane trigonometry. Upon enquiry it was learned that he knew nothing whatever about the subject. The teacher gave him ten lessons of an hour each, one each day, and he missed only one problem of the whole paper set for him. This same teacher prepared another boy once in the whole of solid geometry in a single month, i. e., twenty lessons of an hour each, so well that he did not fail on a single question. The writer once prepared a young man on the whole of plane geometry, including all the original problems given in Wentworth, in twenty-two lessons of an hour and a-half each so that he not only passed the examination but took a prize. And at another time he

prepared a boy on the whole of his college preparatory work, Latin, Greek and Mathematics, with the exception of part of Cæsar and part of White's First Lessons in Greek, in less than ten months, eleven hours a week, so that he passed without condition. The most amusing case with which I am acquainted is that of a Harvard man whom, if I should name, all the college athletic world would recognize at once. His stumbling-block was Greek, a branch of polite learning for which his mind seemed totally inapt. After he finally graduated one of the genial professors asked him how in the world he ever managed to pass his Greek, seeing he never knew any and could not be impelled to learn any, even by the most strenuous efforts. "Well, sir, I went to——," naming a well-known school man whom we all love—"and he just pounded it into me till I passed." Comments are omitted.

But I come now to the considera-

tion of a much more serious question : the effect of the entrance examination upon the schools in respect (1) to the pupils, (2) to the teachers. And in this I shall draw no fancy sketch, but speak from the actual experience and observation of ten years in the work. No question meets a teacher in the college preparatory work more frequently than this : "Do I need this for the examination?" There is no thought of mastering the subject, no delight in knowing, no spirit of true scholarship, but only the question how to pass the examination. There is no idea of moral responsibility, or of fidelity to duty, or of obligation to self-reliance. The whole attitude is, "Here I am, get me ready for the examination." Of course, there are exceptions—and all the more noble in the general degradation—but I am speaking of the rule. Only one thing will induce the pupil to work, the fear of the disgrace of not "passing." And if at any time he begins to realize that he may not pass, he gets a tutor to "coach" him, or if unable to do that and still unwilling to work, will give it up. On the moral side the effect is fully as bad. While writing this paper I was informed on the very best of authority that not more than one student in ten passes a really honest examination. I can neither affirm nor deny this statement. I can only say that he who made the statement is worthy of credence, and that it is an open secret amongst college men that cheating is terribly common, and worse still, that the disposition to it is almost universally prevalent. Who does not know that this cheating is not only not thought wrong, but is either boldly defended or treated as a joke? The teacher has constantly before his eyes the examination and he holds it constantly before the eyes of his pupils, until at last he comes to think that the sole end of teaching is to get his

pupils ready for examination. All freshness in work, all earnest purpose to awaken in his pupils a love for learning, all hope of making them see some of the beauties of it are burdened or crushed out by this nightmare of examination. Under such circumstances is it much wonder that work becomes perfunctory on the part of the average teacher, especially when we are judged solely by the way in which our scholars pass?

Lastly : Professor Seymour, in the February number of *School and College*, says that if ever he becomes a monomaniac the word that will be found uppermost in his mind will be "review." I most cordially agree with all that he says about the importance of review, and my own practice has always been consistent with my belief in this matter. I believe in reviews frequent and careful while the subject is in hand, and one comprehensive review when the subject is about to be completed. But what does the entrance examination compel us to do? If we wish to have the class try the preliminary examinations we must stop all advance work and devote time to the review of work, some of it completed a year, more or less, before. In our own school two months are devoted entirely to this purpose. If the whole work is left until the last year the matter becomes still worse. Again at the end all work not passed must be reviewed, some of it a second time. I will not go so far as to say that time so spent is entirely lost, but I do maintain that it could be much more profitably spent. Here are from four to five months occupied in merely freshening up for examination at the most important time in the student's school life, worth almost as much as a whole year at the beginning of his four years' course. Suppose we could go on with advance work during that time, would not the boys be better prepared than

now? Two hundred pages more of Latin, two hundred more of Greek, four or five months more of Mathematics, to say nothing of the added power of reading and the increased interest!

Mr. Collar, in the December number of the *Educational Review*, uses these words:—"The practice of admitting students by certificate is unfortunately becoming more and more common." There are many that share his view, and their opinion is entitled to great weight. And yet I feel sure that most of the objections thus far urged against the certificate system are against the administration of the system and not against the system itself. For this must be said, that the system at present is what Mrs. Stowe calls a "full-blooded mongrel." Not only do only a part of the colleges use it, but those who do use it use it only in part. The only way in which to give any system a fair trial is to use it completely.

I would have the same restrictions laid upon the schools as are laid upon any business man with whom we deal. At present the colleges say to us: "We will receive certificates from you, but if you send us ill-prepared students the privilege will be withdrawn and your students must pass examinations." Do we use any such language to a business man? On the contrary, we say, "We find we cannot trust you and we will not deal with you." And I claim that on the business side of it this is the only way for the colleges to deal with us in the matter of certificates. If we are not honest enough to send only good work—and some of us have not been, I am sorry to say—let private warning be given just as we give it, or ought to give it to a business man, for his own sake as well as ours, if he sends us goods not up to the mark. If we persist, there seems to me only one way, and that is to let it be

publicly known that students from our school are not satisfactorily prepared. If such a position were taken by all the colleges and rigidly adhered to, how many schools would run the risk of such treatment? But there is a higher and better position still for the colleges to take. Let them assume that we are just as much interested in good work as they, and let them have it generally understood that the schools stand to them not merely in a market relation, but in a partnership relation, all working for the same end, and then how many schools would fail to send only pupils well-prepared in the best sense of the word? This says nothing of the elevating effect upon the school in the increase both of its own self-respect and of its importance in the eyes of the community. If some such position as I have indicated should be taken by the colleges, who could believe that there would be found any necessity for harsh measures on the part of the colleges or any fear that they would suffer from poorly prepared pupils? What colleges could possibly risk anything by receiving boys on certificate from St. Paul's School, or the Girls' Latin School, or Roxbury Latin School, or Norwich Free Academy, or Providence High School, or Hartford High School, or a hundred others which it would be easy to mention? The school men would make it a point of honour to do good work, and certainly they know when a boy is well prepared much better than can be determined by an entrance examination, however it may be made. Is it not clearly evident that admission by certificate makes us personally responsible for good work, while now we are able to throw the responsibility upon a system? If our boys "pass" well, what possible care can we have beyond, seeing we are judged by the examination only? But if my honour is involved in my

recommendation, then, indeed, I must be careful. Seven years' experience of the two plans side by side may have some weight, and I unhesitatingly declare that I have in every case of two boys working side by side been able to secure better work from the one who expected to be admitted by certificate. And in my present class of boys and girls it is easily apparent that the girls are doing better work than the boys, and they all expect to be admitted by certificate. The boy is disposed to say, "I guess I can pass." Did it ever occur to us that without the examination ever before us that we could appeal to the honour of our boys to do good work?

By the mention of one more advantage to be derived from admission by certificate I must leave this subject, still feeling that I have not exhausted it. Perhaps one of the most mischievous results of the entrance examination is that it enables a man or woman skilful "in anticipating the sort of problems that will be set, the questions that will be asked, the passages for translation, etc.," to use Mr. Collar's words—to "get a boy ready for college." Now let there be no such thing as passing an examination and it relieves both the schools and colleges. Perhaps we feel this more in university towns than elsewhere, but it certainly is a great hindrance to good work wherever it may be found. Boys who have money depend upon being "crammed" or "coached," and it is often impossible to get good work from them. I am not saying anything against private tutoring as a means of preparing properly for college, but as a means for preparing boys for examination. The evil is in the system, and not in the tutors.

Aware that there will probably be some losses by giving up the entrance examination, but confident that the losses will be made up a thousand-fold

by the adoption of the certificate system with some such safeguards as I have suggested, I unhesitatingly advocate its adoption in the interests of good work certainly in the schools and, therefore, in the colleges themselves.

As I have thought over the subject of this paper and have tried to put my thoughts into shape, the difficulty of the problem that we are trying to solve, and that all earnest men are so deeply interested in, has not grown less. In whatever special way it is to be solved no one can say: but some things seem to me to be clear. (1) The men in the work must solve it, and that means all the men, college, secondary and lower school, for the life of one is "bound in the bundle of life" with the others. There must be a fuller and kindlier recognition of this relation and interdependence before we shall progress greatly. The clearer the recognition the more apparent it will become that none can afford to stand aloof and refuse to contribute his share, be it great or small. In saying this I am not unaware of the existence of the New England Association of Colleges and Preparatory Schools, nor am I insensible to the good it has already done towards establishing a more friendly feeling between the college and school men, and in the progress made towards a right solution of some of the difficulties of the situation.

(2) We have heard very much of late about foreign systems, what the French are doing, the Germans and the English. All thoughtful men can but rejoice that we have such complete knowledge of what other nations are doing, and to the few men who are studying the systems of these older countries with a view of widening the circle of our knowledge, we owe a just debt. But in more than one quarter there have been signs of a disposition to recommend the sub-

stitution of some foreign system in whole or in part in this country. It seems to me that the advocates of such a scheme have forgotten this is America and not England, or France, or Germany. Whether our system is better or worse than theirs is not now the question, nor is that necessarily of any consequence. If, for example, the English system were the best in the world, that would only mean that it was the best for England. To adopt a ready-made system might seem to be a very easy way out of our difficulties, but it would be a very foolish way. This does not mean that we cannot learn from the older countries, but whatever we learn must be made our own, digested and assimilated, before it can be of any use to us. The "working out of our own salvation" may be slow and painful, but it is the only way. President Dwight's words may well be pondered: "The end which we have in view is not to be accomplished by a sudden and entire breaking away from what has been established, or by

imitation of what is done by others who may be under conditions and influences quite different from our own."

(3) There must be on the part of all of us a willingness to acknowledge facts however unpleasant. A fact cannot be looked out of countenance, neither can it be gotten rid of. If, then, either college men or school men find by careful, searching inquiry that there is something wrong in their own system and that its removal would benefit them and others, let them remove it. "Is it I?" is a much better way of getting at a trouble than by looking to see if there is not something the matter with the other man. It is not only more likely to right this particular wrong, but it puts one in the proper frame of mind for improvement in general. In this work we may well take Lowell's words for our motto: "It is a man who is sacred, it is his duties and opportunities, not his rights, that now a-days needs reinforcement: it is honour, justice, culture, that makes liberty invaluable."—

The Academy.

"PATRIOTISM AND POLITICS."

IN conclusion, I shall presume to suggest, with all deference, a brief outline of what appear to me the most efficient means to preserve purity of elections and to perpetuate our political independence. Many partial remedies may be named. The main purpose of these remedies is to foster and preserve what may be called a public conscience. In the individual man, conscience is that inner light which directs him in the knowledge and choice of good and evil, that practical judgment which pronounces over every one of his acts, that it is right or wrong, moral or immoral. Now, this light and judg-

ment which directs man in the ordinary personal affairs of life, must be his guide also in the affairs of his political life; for he is answerable to God for his political, as well as his personal, life. The individual conscience is an enlightenment and a guide; and it is itself illumined and directed by the great maxims of natural law and the conclusions which the mind is constantly deducting from those maxims. Now, is there not a set of maxims and opinions that fulfil the office of guides to the masses in their political life? The means which I propose are:

First, the enactment of strict and

wholesome laws for preventing bribery and the corruption of the ballot-box, accompanied with condign punishment against the violators of the law. Let such protection and privacy be thrown around the polling booth that the humblest citizen may be able to record his vote without fear of pressure or of interference from those that might influence him. Such a remedy has already been attempted, with more or less success, in some States by the introduction of new systems of voting.

Second, a pure, enlightened and independent judiciary to interpret and enforce the laws.

Third, a vigilant and fearless press that will reflect and create a healthy public opinion. Such a press, guided by the laws of justice and the spirit of American institutions, is the organ and the reflection of national thought, the outer bulwark of the rights and liberties of the citizen against the usurpations of authority and the injustice of parties, the speediest and most direct castigator of vice and dishonesty. It is a duty of the citizens of a free country not only to encourage the press, but to co-operate with it; and it is a misfortune for any land when its leading men neglect to instruct their country and act on public opinion through this powerful instrument for good.

Fourth, the incorporation into our school system of familiar lessons embodying a history of our country, a brief sketch of her heroes, statesmen and patriots, whose civic virtues the rising generation will thus be taught to emulate. The duties and rights of citizens along with reverence for our political institutions should likewise be inculcated, as Dr. Andrews, President of Brown University, recommends in a recent article. There is danger that the country whose history is not known and cherished will become to the masses only an abstrac-

tion, or, at best, that it will be in touch with them only on its less lovable side, the taxes and burdens it imposes.

Fifth, a more hearty celebration of our national holidays. The Hebrew people, as we learn from sacred Scripture, were commanded to commemorate by an annual observance their liberation from the bondage of Pharaoh and their entrance into the Promised Land. . . . If holidays are useful to those that are to the manner born, they are still more imperatively demanded for the foreign population constantly flowing into our country, and which consists of persons who are strangers to our civil institutions. The annually recurring holidays will create and develop in their minds a knowledge of our history and admiration for our system of government. It will help, also, to mould our people into unity of political faith. By the young, especially, are holidays welcomed with keen delight; and as there is a natural, though unconscious, association in the mind between the civic festivity and the cause that gave it birth, their attachment to the day will extend to the patriotic event or to the men whose anniversary is celebrated.

Sixth, the maintenance of party lines is an indispensable means for preserving political purity. One party watches the other, takes note of its shortcomings, its blunders and defects; and it has at its disposal the means for rebuking any abuse of power on the part of the dominant side, by appealing to the country at the tribunal of the ballot box. The healthiest periods of the Roman Republic were periods of fierce political strife. The citizens of Athens were not allowed to remain neutral. They were compelled to take sides on all questions of great public interest. Not only was every citizen obliged to

vote, but the successful candidate was bound to accept the office to which he was called, and to subordinate his taste for private life to the public interests. England owes much of her greatness and liberty to the active and aggressive vigilance of opposing political camps. Political parties are the outcome of political freedom. Parties are not to be confounded with factions. The former contend for a principle, the latter struggle for a master. To jurists and statesmen these considerations may seem

trite, elementary and commonplace; but, like all elementary principles, they are of vital import. They should be kept prominently in view before the people, and not obscured in a maze of wordy technicalities. They are landmarks to guide men in the path of public duty, and they would vastly contribute to the good order and stability of the commonwealth if they were indelibly stamped on the heart and memory of every American citizen.—*James Cardinal Gibbons, in the North American Review for April.*

THE TRAINING OF TEACHERS.

FIFTY THREE years ago the training of the teachers in this country was in much the same condition as it had been when the office of the teacher first became differentiated from that of parson, two hundred years before. There was nothing of the kind attempted or thought of. Teachers had only to be born; there was no thought that they must also be made. The idea that teachers must be trained has been of slow growth. And the charge brought by Horace Mann against parents of his day, that they would "suffer their children to go to school! through a whole winter without asking whether they were fed either intellectually or morally with anything better than the East wind," while it cannot be urged in these days in precisely the same form, still holds as against those parents who regard the same scanty fare as sufficient for the professional training of their children's teachers. It is extremely interesting, and a trifle discouraging, to note the fact that Horace Mann and Andrew S. Draper—two men whose distinguished services for the cause of public education won for them a National reputation, both lawyers, and both holding the chief post of respon-

sibility for public education in their respective States—not only found the same problems, but came to the same conclusion as to the shortest way to their solution.

"Without good teachers there cannot be good schools; and we have as little right to expect good teachers without adopting means to prepare them as we have to expect beautiful gardens and cultivated fields to spring up spontaneously in the wilderness," said Horace Mann in 1842. "We may continue to talk of innumerable things, but nothing can be of such supreme importance as the institution of efficient agencies for the promoting of the training of professional teachers," said Judge Draper forty-nine years later. Both statements are palpably true; each was in its time equally necessary. For to-day, of the four hundred thousand teachers in the United States, only a small proportion have received the slightest professional training; to-day, at least one State east of the Mississippi and north of Mason's and Dixon's line has failed to provide, as a State, a single agency for such training; and public opinion throughout the country, while often going so far as to de-

mand that kindergartners be trained, and that the youngest primary children have the best teachers, in the higher grades still permits the callow college graduate to learn the art of teaching from the hapless classes that chance to come under his instruction in the years of his novitiate.

Within the past five years, however, the cause of the training of teachers has received an impetus. The same conditions that demanded schools of technology, increased the number and variety of the courses in the college curriculum, and introduced the elective system, have also demanded a similar broadening and reorganization of the curriculum of the common schools; they have demanded the introduction of music, gymnastics, manual training, objective and inductive methods into all grades, and of the elective principle into the high school, to the end that the common schools may be in closer touch with the conditions of modern life, and that it may no longer be true that eleven-twelfths of the pupils in the schools drop out before they have completed even the grammar-school course.

In the presence of this demand the

training of the teacher is not merely a thing desirable, it is a *sine qua non*; a teacher or a superintendent, untrained, will fail in dealing with such conditions just as a quack fails in treating a new disease. And so, from both sides—from individual necessity as well as from public policy—there has arisen an urgent demand for superior normal schools: from the side of the teacher, for institutions to train superintendents and teachers for the public and private schools, and to equip faculties for the lower normal schools; from the side of the schools, for centres whose function it is to work out the solutions of the problems of organization and adjustment which single schools are too isolated and incomplete, and which public school systems are too unwieldy to attempt to solve. It is evident that until this adjustment is accomplished the demand for trained teachers will exceed the supply, salaries will rise as requirements multiply, and men and women of higher abilities will seek the higher honours and rewards of the teaching profession.—*Professor Walter L. Hervey, in the Christian Union.*

THE EDUCATIONAL VALUE OF GRAMMAR.

GRAMMAR is not the peculiar property of any language or group of languages. It is psychological, and therefore universal in its nature. It is a study which, though conducted through the medium of language, addresses itself to phenomena of mind; its principles do not depend upon language except in their manifestation; it is (if I may so speak) prior to language; and it governs not only the study, but the very genesis, of language itself.

Grammar is the study of language in its true nature; and hence it comes to pass that the aim of grammar is

coincident with the purpose of language; it is in the same line and direction with the proper use of language. The business of language is to predicate. In this one word the whole matter may be summed up; the use of language is to predicate, that is, to say something of some subject. In the view of grammar every word is valued by its relation to the act of predication and its share in that act; upon this one principle it gathers all words into a small group of categories, and these categories, are the parts of speech. . . .

Dean Hook, in his "Life of Tat-

wine," who was Archbishop of Canterbury from 731 to 734, had occasion to notice the fruits of that system of education which had been instituted by Hadrian, the companion of Archbishop Theodore. Entertaining upon this theme, he made a passing observation: "For the exercise of the mind, nothing has been found comparable to the study of the philosophy of grammar, except the mathematics." I have not quoted these words for their singularity, but for an opposite reason; namely, because they formulate what I take to be the prevalent opinion of the whole period since education was first made a matter of earnest enquiry and investigation. This old notion has governed the course of literary education for centuries, and, new lights or new experiments notwithstanding, I think it must in the main continue to govern it, because I believe it to be founded in natural truth.

In fact, grammar is the natural focus and centre of all philological study, and it is easy to see that this must necessarily be so; for as the spring of all language is predication, and as with the progress of development the act of predication becomes highly complex and elaborate, some habit of analysis is requisite if the mind is to keep pace with its own creation. Grammar is the psychological analysis of predication. We are too prone to hold elementary grammar cheap merely because it is elementary, and because it is supposed to be common knowledge; but it is in reality the first condition of our bringing a scientific mind to bear upon the phenomena of language. Whatever we learn by comparative philology goes but to constitute a periphery which resolves, or ought to resolve, round this central "hub" of linguistic science. . . .

There is no one but is the better for a well-trained grammatical habit of mind. It is this habit which culti-

vates language as an instrument of thought, which facilitates lucidity in diction, and prompts the most harmonious and interpretative tones in reading aloud. The parts of speech are not exhausted when they have been learned once for all; they are not fixed and rigid; they are full of the elasticity and variability of life; they have their transitions, graduations, refinements. Take the familiar little words "they," "their," "them." These were demonstratives before they were personal pronouns, and when they became personal pronouns, they did not forfeit the right to be demonstratives. Does this seem pedantic, dry, and uninteresting? Unfortunately it is apt to be so voted, and one of the consequences is, that we never can be sure we shall hear these words rightly delivered. Familiar and beautiful sentences are too often marred from this cause. "We have heard with our ears, and our fathers have declared unto us, the noble works that thou didst in their days, and in the old time before them." The right reading of this versicle turns upon the delivery of "their" and "them;" and that right delivery will be insured by the knowledge that they are demonstratives. It is not so well known as it deserves to be, that the secret of good reading lies, not so much in the correct pronunciation of the big words, as in the appropriate intonation of the little ones. . . .

In considering the study of English, I have taken it for granted that the first place is due to its educational aspect, and that, if this is well ascertained, the course of scientific enquiry may be left to take care of itself. It is important to realize the broad difference between educational value and scientific value. Educational value is measured by its usefulness in opening the mind of the learner; but scientific value is independent of the measure of usefulness in every sense. —*Professor John Earle, in The Forum.*

ENGLISH WORDS: SURNAMES.*

A PATRONYMIC is pretty sure to date back to the sixteenth century, if not to a much earlier period. The old Bible Christian names, like Samuel, Jacob, Daniel, Peter, John, and James, have all given up patronymic derivatives. Joseph, too, appears in Jessop. But the Bible names adopted in the seventeenth century by the Puritans, like Asa, Abijah, Seth, Eli, Jabez, have not resulted in any patronymics, because they were taken up after surnames were pretty well settled. Some personal names that have disappeared from use are preserved in patronymics. The Norman names Ivo, Hugo, Hammet, once so common, are now never given to English-speaking boys, but survive in the surnames Ives, Iveson, *Hughes* and *Hamlin*. The very pretty girl-names, Joyce, *joyeuse*, or merry; Lettice, *Letitia*, or innocent pleasure; and, best of all, *Hilary*, from the root hilarious or happy, now lost, might very properly be revived in use.

Bottom is the old Sussex word for valley, and is compounded in a number of English names, as *Higginbotham*, *Winterbottom*, etc. *Burne* is a brook; *Lough*, a ravine; *Cobb*, a harbour; *Crouch*, a cross, of which so many were erected in the market-places of towns. *Hatch* is a gate; *Holt* is a grove; *Lynch*, a thicket; *Ross*, a heath; *Sykes*, a spring; *Sale*, a hall. These are all territorial names, though *Ross* may be, in some instances, from the word meaning red.

The names of places and persons not unfrequently end in *ham*, *ingham*, or *ington*. These are true Saxon territorial names. The termination *ing* meant belonging to the tribe. Thus *King* is really son of the tribe. The *Eppings* and *Hastings* are the de-

scendant of *Aes*, the *Warings* of *Waer*, the *Erpings* of *Erp*, and so on through some two hundred and fifty monosyllabic given names. Very few of these words ending in *ing* are found to-day in England as surnames, because the custom of adopting transmissible family appellations was not instituted in Saxon England; but all of them have given names to English villages, though usually the suffix *ton*, town, or *ham*, home, is added. Thus *Walsingham* is the home of the *Walsing*; *Worthington* is the town of the *Worthing*. Then, these towns gave surnames to those who lived in them, and we have the class of old Saxon names like *Remington*, *Hoisington*, *Huntington*, *Allington*, *Erpingham*, *Buckingham*, *Washington*, and many others. These are the finest names in our language. *Coffin*, which is seen in *Covington*, is the only one not strong and euphonic. In addition to these, there is hardly to be found a town or country that has not given a surname to some families. *York*, *Bradford*, *Manchester*, *Winchester*, *Sheffield*, *Kent*, *Salisbury*, *Richmond*, *Chester*, we meet everywhere.

Of the third class, or occupative surnames, we have a large number, and as a rule these surnames are represented by a larger number of individuals than are any others. The *Smith* was, of course, represented in every village, though he is sometimes called a *Gower* or a *Gowan* in Celtic districts. Then we have *Bishops*, *Clerks*, *Parsons*, *Leaches*, *Carters*, *Tailors*, *Turners*, *Cooks*, *Fullers* or cloth-workers, *Carpenters*, *Wagners*, *Millers*, *Wrights*, etc., in abundance. We have no doctors nor lawyers, though *Councilman* is not unknown, nor is *Fudge* as a surname. *Stewart* is the king's steward, and *Butler* his "boteler." Many forgotten trades are represented in occupative surnames.

* An extract taken from Professor Charles F. Johnson's "English Words. A Story of Derivatives."

EDUCATION AND PRACTICAL LIFE.

BY HIRAM ORCUTT, LL.D.

WE hear much said about self-made men. Dr. Holmes writes, "Everybody likes and respects self-made men. It is a great deal better to be made in that way than not to be made at all," and he might have added that really there is no other way to make men.

This term is usually applied, however, to that class of men who come into public life and rise to distinction without the aid of academic culture, and this fact is sometimes claimed as proof that the higher education is not necessary or desirable as a preparation for life's duties. But facts do not sustain this view of the case.

It is true that scholastic education cannot make the man. It must have something to develop and polish. Talent or ability is a natural product wherever it exists, and in whatever degree. If the boy has but one talent the school or college can but develop but one. If he has five talents and improves his opportunities, the college will place him on a much higher plane in active life.

But give us two boys of equal capacity. To one of them give a systematic and thorough collegiate education, and leave the other to come up through the "rough and tumble" of life. The former will have the advantage of a great controlling help of which the other is deprived, and by which he would be greatly benefited. The disposition to depreciate and undervalue a university education arises from a narrow conception of education itself and of the true nature and aims of life.

Every man who has become a man has been self-made. This is as true of the college graduate as it is of the

man who has risen to distinction without academic training. The latter are not usually found boasting of what they have accomplished without the help of the college, but more often regretting that they did not or could not enjoy the superior advantages which the college affords. One of Boston's distinguished men who has attained the highest position in his profession once said to the writer, "Could I have realized the possibilities of life when I started, I should have pursued a full collegiate course instead of rushing into the pulpit as I did."

Development and culture are the result of self-application and can be secured in no other way. An example may be a Lincoln pouring over his law books by the aid of a burning pine knot in the western wilderness, or an Everett studying in the halls of Harvard University. The circumstances and methods differ, but the aim and results are the same in kind. Lincoln would doubtless have done more and better under the systematic training of the university, and Everett would have suffered loss with only the advantages enjoyed by the great rail-splitter, lawyer and president. But both these men were self-made.

Practical ability in any profession or calling is the object to be gained by education, and this is not to be applied alone to those who lay brick or take in currency over the counter. It must be found in every position and sphere of life. College training aims to develop a man's self-making power, and he is less likely than those who climb up some other way, to fashion himself according to any narrow pattern. But if the power is

not in the man in latent form, the college cannot develop it.

How then are we to treat this subject? Shall we urge the importance of universal education? Certainly the primary, and as far as practicable, the higher academic training. Shall we encourage all to avail themselves of college and university culture? I answer no. There are a few in every generation who do not seem to need it, to gain distinction and influence. Still these same men would be greatly benefited by a more extensive and systematic education. And there are many who would not be sufficiently benefited by such a course of study, to warrant the necessary time and expense to complete it.

Well established statistics fully sustain the position I have here taken. It has been estimated by good authority, that a free public school education

in our country adds 50 per cent. to the productive power of labour. Hence every child should be so educated. Again, an academic education it is claimed adds 100 per cent., and a college and university education 200 to 300 per cent. to the productive power of labour. This of course depends upon the capacity and ability of the student or pupil to profit by the advantages of the higher education. Hence, so far as they give evidence of ability and adaptation to any line of manual service, and have the means to prosecute such a course of study, our youth should be encouraged in the effort to secure a more or less liberal education. Another interesting fact illustrates. Only a small fraction of one per cent. of the voters in the United States of America are college educated men, yet they hold 58 per cent. of the highest offices.

GEOGRAPHY.

THE entire coast line of the globe is 136,000 miles.

It is believed that the world's population is increasing at the rate of nearly 6,000,000 a year.

THE construction of 2,500 miles of railway will connect Santiago, Buenos Ayres, and Montevideo with New York. The Transandine Railway between Buenos Ayres and Valparaiso is practically completed, only a few tunnels remaining to be finished.—*Goldthwaite's Geographical Magazine.*

THE smallest inhabited island in the world is that on which the Eddystone Lighthouse stands. At low water it is 30 feet in diameter; at high water the lighthouse, whose diameter at the base is $28\frac{3}{4}$ feet, completely covers

it. It is inhabited by three persons. It lies nine miles off the Cornish coast, and fourteen miles south-west of Plymouth breakwater.—*Pittsburg Dispatch.*

SOUTH AMERICAN NOTES.—Sucre, formerly Chuquisaca, is the constitutional capital of Bolivia, but practically the seat of government is at La Paz. Potosi, 13,330 feet above the sea, is probably the highest town of any considerable size in the world. La Paz and Cuzco are each about 12,000 feet, and Cerro de Pasco, a small village, is nearly 14,000 feet in altitude.—*Goldthwaite's Geographical Magazine.*

CHILE has eighty cities, each with a population exceeding 5,000. Santiago, the first in rank, has 237,000

In this city are a national university, a public library of 100,000 volumes, a museum of natural sciences, an academy of fine arts and a very extensive botanical garden. Among the various publications are seven daily newspapers, several monthly and quarterly magazines, and a number of technical and scientific journals.—*Goldthwaite's Geographical Magazine.*

SARAWAK.—Kuching, the capital, is a model city in respect to sanitary condition. Muka is the centre of the sago industry, and at Busoli in upper Sarawak there are extensive antimony

works, while at Paku the Chinese extract gold. Throughout upper Sarawak there are experimental governmental plantations where pepper, tea and coffee do well, but tobacco is a failure. A considerable trade is carried along the Rejang, the largest stream of the State. It is navigable for vessels drawing not more than seven feet a distance of 160 miles. In 1890 the foreign trade amounted to \$4,500,000, the chief articles of export being sago, flour, gutta-percha, pepper, rattan and gambier.—*The British Consul at Brunei, in The Times.*

NOTES FOR TEACHERS.

HASTINGS AND THE ROHILLAS.—Sir John Strachey, in his book bearing this title, has been able to show that the story of the supposed guilt of Warren Hastings in connection with this tribe is a delusion.

STANDARDS OF WEIGHT AND MEASURE.—In presence of the Speaker and Clerk of the British House of Commons and others, on April 2nd, 1892, the Official Examination of the Standard pound and yard took place. This examination is made every twenty years, and the primary standards are then sealed up and deposited for safety in a walled-up recess in the House of Parliament. The instruments used are of sufficient delicacy to detect an error of the one hundred thousandth part of an inch, and of the ten thousandth part of a grain.

THEY MUST BE INTERESTED.—A matter often misapprehended and abused by teachers is that the school must be made pleasant and the pupils interested. They have read or heard

that the power to do this is the criterion of a teacher's success. Not wishing to be adjudged dismal failures they straightway set about finding means to amuse and entertain their pupils. Stories are read to the children and exercises given for the express and sole purpose of interesting the little ones and making things pleasant. Such a course of procedure is harmful rather than beneficial. It dissipates rather than strengthens the faculties of the learner. The wise teacher will use these means as an end. The story will be used to illustrate a moral or some truth, or to arouse a noble and lofty aim and ambition. If the teacher fails to interest the school in the ordinary school-work, failure is certain. An able teacher will need very little matter not bearing directly upon the subject studied in order to make his instruction interesting. He would be counted a poor preacher who must resort to the arts of the mountebank or clown to make his sermons interesting. Study to present knowledge in an attractive and forcible manner, and you

will never complain of a lack of interest. If you satisfy the craving after knowledge in the minds entrusted to your care, you will see pleased and happy faces about you in the school-room.—*C. H. W., in Central School Journal.*

NO NEUTRAL GROUND.—There can be no greater mistake than to suppose it possible for the teacher to occupy neutral ground in the school room in regard to the great questions of morality and religion. It is easy to say he need not, or shall not, give any formal instruction on these subjects. But he is daily, hourly, expressing his views and principles in a language more effective than any speech. If his heart is enlarged with Christian philanthropy, if his motives are pure, his aims lofty, his spirit patient and loving, he is constantly speaking to the hearts and consciences of his pupils in a language which they cannot fail to understand. If he is destitute of all these qualities of mind and heart, the best moral maxims and religious sentiments will fall powerless from his lips. The question of moral and religious instruction is not a question of the Bible, or of religious exercises in schools, half so much as it is a question of the character and conduct of the living teacher.—*Public School.*

THE PERFECT WHOLE.—The latest Report of the Board of Supervisors for the City of Boston, for the year 1890-91, reports that a much-needed change has been made in the interests of good and permanent reading for pupils in the Primary and Grammar Schools, a change similar to the one made in the Boys' Latin School fifteen years ago. Beside the regular reader for the first classes in the Grammar Schools there has been placed as a text-book "Masterpieces of American Literature"; and for the

first classes in the Primary Schools there has been authorized for use as permanent supplementary reading "The Book of Fables" (Scudder's). This change heralds the day, it is hoped, when pupils will read whole productions that possess high literary merit, instead of reading either "pieces" or "bits" from good authors, or productions that are poor both in thought and in style, and that leave the mind empty and listless.

VERNER'S LAW.—Our correspondent E. S. H. having asked for an explanation of Verner's Law, we venture to take out of the correspondence column an answer which may serve to supplement the ordinary grammars of English, on a matter which has an important bearing on comparative philology.

In Grimm's Law, it will be remembered that the Indo-European terms *h, t, p* became in Teutonic *h, th, f*.

So Lat. <i>cornu</i>	was in Gothic	<i>haurn</i>	—
" <i>frater</i>	"	"	<i>brōther</i>
" <i>pater</i>	"	"	<i>fader</i>

But it will be noticed that the *t* in Lat. *pater* = *d* in Gothic *fader*, while the *t* in Lat. *frater* = *th* in Gothic *brōther*. This occasional presence of *d* where we expect *th*, and similarly *g* instead of *h*, *z* instead of *s*, for a long time remained a *crux* for philologists. Karl Verner, however (in Kuhn's *Zeitschrift*, XXIII., 97 ff., 1872), pointed out the law of the phenomena and made to philology the greatest contribution since the discovery of Grimm's Law.

Verner's explanation is based upon the system of accentuation which prevailed in Indo-European and extended into the primitive Teutonic period. This system of accentuation allowed the accent to shift from root to termination—it was not fixed as in the modern languages (cf. *king'*, *king'ly*, *king'dom*, *king'ship*, etc.). His law was that, when the accent in the

original language was on the vowel immediately preceding, the Indo-European tenues become in Gothic, etc., the *voiceless* aspirants—*h, th, f*—but when the accent is placed on any other part of the word, these aspirants appear, in Gothic, etc., *voiced*—*g, d* (pronounced as *th* in “them”) *b* (bilabial=*v*). The law holds likewise in the variations of *s* and *z*, though it must be remembered that in West Germanics *r* took the place of *z* (rotacism).

So Sanskrit *bhrá'tar*, with the accent on the preceding vowel regularly became *bró'thar*; but Sanskrit *má'ta'r*, *pít'a'r* with the accent not preceding became as *mó'dor*, *fæ'der*.

In Anglo-Saxon the operation of

the law is restricted mainly to the following variations:—

(1) *th-d*. *cwethan*, to say; *cwath*, (I) said; *cwædon*, (we) said; *cweden*, said.

(2) *h, g*. *Theon*, to thrive; *thah*, throve; but *thungen*, (we) throve.

The termination in the Indo-European being in the case of the infinitive and past singular on the stem, but in the past plural and perfect particle on the termination.

(3) *s-r*: *Ceosan*, to choose; *ceas*, *curon*, *coren*.

So we explain *was*, plural *were*. The *s* in the past plural became *z*, which in the West Teutonic group became *r*. So likewise *lose* but the old past participle (*for*)*lorn*.

PUBLIC OPINION.

To make education amusing, an easy road without toil, is to train up a race of men and women who will shun what is displeasing to them.—*The Century*.

“REMEMBER, young gentlemen, the strongest point in all moral philosophy is, to my mind, the adaptation of the best there is in us to the case presenting the greatest need.”—*My Old Professor*.

“WHY the wicked should do evil with both hands diligently and the righteous put only a finger to their work is one of those difficulties which we can recognize but cannot solve.”—*Mrs. Diffidence, All the Year Round*.

THE DISADVANTAGE.—The boldness and outspokenness of Mr. Yoxall's address appeals to all true educationists, and marks a distinct epoch in the educational world so far as this

country is concerned. In discussing “education free from neglect, mistrust and mismanagement,” he deals a series of weighty and effective blows at an educational system which has overstrained and disgusted both pupils and teachers, and driven many of our best teachers to other walks in life, much to the disadvantage of education generally.—*Cheshire County News*.

IS IT WORTH WHILE? — The superiority of the clerk over the artisan resides wholly in his clothes. He wears a black coat instead of a white jacket. Is it worth while to crowd yet more young people into a calling which is already far too full, in order to enjoy a superiority founded on no better distinction than this? Is there anything in the touch of what by courtesy is called broadcloth to make it worth while to accept in return poorer pay, longer hours, more unwholesome conditions of work? We greatly doubt it.—*Spectator*.

EXTRANEOUS DUTIES.—The National Union of Teachers in conference assembled has shown a due regard for the liberty of the subject in protesting that no teacher ought to be required to undertake or abstain from any duties out of school hours. Nor is there any doubt that instances of such improper requisitions frequently occur. It often happens that a teacher in a school which draws a Government grant is expected to superintend the Sunday school or to assist at choir practices. There are other cases in which such a teacher would be in danger of forfeiting his

post if he took an active part in politics on the side with which his superiors disagreed. That ought not to be. A school teacher's life is sufficiently devoid of amenities without the introduction of any tyrannical restrictions of the kind. It is imperative, of course, that a teacher should do the duties he is paid to do, and should abstain from any occupation which hinders their adequate performance. But this general rule does not require to be supplemented by arbitrary interference with the liberty of the individual to use his leisure as he pleases.—*Daily Graphic.*

EDITORIAL NOTES.

CANADA'S TEACHERS' ASSOCIATION.

SINCE our last issue, we have been informed that the teachers under the control of the Roman Catholic Committee of the Council of Public Instruction for the Province of Quebec are going to join heartily with the teachers of the other Provinces of the Dominion in the convention which is to be held in Montreal during the first week of next July. This augurs well for the country, and also for the teachers themselves. The Dominion Teachers' Association will render, perhaps, no greater service to the cause of education than by the influence it will exert on teachers all over the country in keeping before them the noble character of the work in which they are engaged, and inculcating the high spirit in which it should be performed. Men in every profession require stimulating at times. This refreshing may come in various ways: one way to the teacher is to see the members of his profession. Work is apt to become dreary and monotonous. To be brought into contact with our

fellow workers and interchange ideas with them lifts us out of our own narrow groove and sends us back to our labour with renewed energy and higher purpose. The Canada Teachers' Association is a most powerful force for unifying our Dominion, and the French teachers can very effectively help in this great and good work.

THE INDIAN QUESTION.

THE Indians of Canada are regarded as minors under the care of the Government. The Government is in the position of guardian and trustee of their interests. Therefore it follows that it is the duty of the Government to provide for the elementary education of the Indians in the common branches of knowledge, and at the same time to train them in some industrial pursuit in order that these children of our Indian population may be able to maintain themselves in after life, thus becoming self-supporting citizens of Canada. We all know that the Indians cannot do this for themselves.

It has been found that this very difficult and important work can be better done by the agency of the churches and in connection with moral training than in any other way. Hence the Government has made grants to the Roman Catholic Church, to the Church of England, to the Presbyterian Church in Canada, and to the Methodist Church, for doing this educational work, and in proportion to the amount of work done. Those familiar with educational affairs will recognize in the above plan of carrying on educational work and giving aid, the plan which has for years been acted upon in Great Britain and Ireland. To this mode of aid-giving by the Government there are, of course, objectors. We would not be self-governing Britons if there were not such persons amongst us. Well, friends; what would you have? Show a better way, and we are sure the country will be pleased to adopt it. Meanwhile, this Christian country will continue to instruct the untaught Indians of Canada by the effective aid of our churches and pay them, as best we can, for such good work till

you report and the new plan, if found to be better, is adopted. For the Indians, we plead fair, honourable, Christian treatment. As in the past, so, at least, for the future.

“NASCENTE LUNA.

I see a stretch of shining sky
 Like some fair ocean sunset, lit.
 Peaceful and wide its spaces lie,
 And purple shores encompass it.
 A little slender silver boat
 Upon its bosom is afloat.

This craft, unstayed by winds or tides;
 Slips out across the twilight bar;
 Through rosy ripples, soft she glides,
 Led by a single pilot star:
 With shadowy sails, and fairy crew,
 She drifts along the summer blue

She's filled from stem to stern with flowers,
 And Love, and Hope, and Happiness.
 Will aught of what she brings be ours?
 Ah me! if we could only guess!
 She rides elusive and remote,
 This little slender silver boat.
 —*Frances Wynne, in the Spectator.*

SCHOOL WORK.

MATHEMATICS.

I. E. MARTIN, B.A., R.M.C., KINGSTON, EDITOR.

(Continued from page 194.)

TRIGONOMETRY.

8. (a) Prove that

$$\frac{\sin \alpha + \sin \beta + \sin \gamma - \sin (\alpha + \beta + \gamma)}{\cos \alpha + \cos \beta + \cos \gamma + \cos (\alpha + \beta + \gamma)}$$

$$= \tan \frac{\alpha + \beta}{2} \tan \frac{\beta + \gamma}{2} \tan \frac{\gamma + \alpha}{2}.$$

(b) If l, m, n , are the altitudes of a triangle, drawn from the vertices A, B, C respectively, $a \sin A + b \sin B + c \sin C = 2 (l \cos A + m \cos B + n \cos C)$.

$$(a) \frac{\sin \alpha + \sin \beta + \sin \gamma - \sin (\alpha + \beta + \gamma)}{\cos \alpha + \cos \beta + \cos \gamma + \cos (\alpha + \beta + \gamma)}$$

$$= \frac{2 \sin \frac{\alpha + \beta}{2} \cos \frac{\alpha - \beta}{2} - 2 \sin \frac{\alpha + \beta}{2} \cos \frac{\alpha + \beta + 2\gamma}{2}}{2 \cos \frac{\alpha + \beta}{2} \cos \frac{\alpha + \beta}{2} + 2 \cos \frac{\alpha + \beta}{2} \cos \frac{\alpha + \beta + 2\gamma}{2}}$$

$$= \frac{2 \sin \frac{\alpha + \beta}{2} \left(\cos \frac{\alpha - \beta}{2} - \cos \frac{\alpha + \beta + 2\gamma}{2} \right)}{2 \cos \frac{\alpha + \beta}{2} \left(\cos \frac{\alpha - \beta}{2} + \cos \frac{\alpha + \beta + 2\gamma}{2} \right)}$$

$$= \frac{4 \sin \frac{\alpha + \beta}{2} \cdot \sin \frac{\alpha + \gamma}{2} \cdot \sin \frac{\gamma + \beta}{2}}{4 \cos \frac{\alpha + \beta}{2} \cdot \cos \frac{\alpha + \gamma}{2} \cdot \cos \frac{\gamma + \beta}{2}}$$

$$= \tan \frac{\alpha + \beta}{2} \cdot \tan \frac{\gamma + \beta}{2} \cdot \tan \frac{\gamma + \alpha}{2}.$$

(b) $l = c \sin B$; $m = a \sin C$; $n = b \sin A$.
 Or $b \sin C$, or $c \sin A$, or $a \sin B$.
 $\therefore 2 (l \cos A + m \cos B + n \cos C)$

$$\begin{aligned}
 &= 2c \sin B \cos A + 2a \sin C \cos B \\
 &\quad + 2b \sin A \cos C \\
 &= \sin A (b \cos C + c \cos A) + \sin B \\
 &\quad (a \cos C + c \cos A) + \sin C (b \cos A + a \cos B) \\
 &= a \cdot \sin A + b \sin B + c \sin C.
 \end{aligned}$$

9. (a) In any triangle $a^2 = b^2 + c^2 - 2bc \cos A$. Show from this that if c has two real positive values a is less than b , and the triangle is ambiguous.

(b) If in the ambiguous case the ratio of the two values of the indeterminate side be $\sqrt{3} + 2$, and the given angle be 45° , show that the angle between the two positions of the opposite side is 60° .

9. (a) $a^2 = b^2 + c^2 - 2bc \cos A$. Solve for c .

$$c^2 - 2c \cdot b \cos A + \left(\frac{b \cos A}{2}\right)^2 = a^2 - b^2 + b^2 \cos^2 A,$$

$$\therefore c = b \cos A \mp \sqrt{a^2 - b^2 + b^2 \cos^2 A}.$$

If both values of c are positive ;

$$\begin{aligned}
 b^2 \cos^2 A &> a^2 - b^2 + b^2 \cos^2 A \\
 \text{or } b^2 &> a^2. \quad \text{or } a < b.
 \end{aligned}$$

One side c having two positive values, and a being $< b$, the triangle is ambiguous.

$$\begin{aligned}
 (b) \quad (1) \quad \frac{b_1 + b_2}{2} &= AD = \frac{c}{\sqrt{2}} \\
 \therefore b_1 + b_2 &= b\sqrt{2}.
 \end{aligned}$$

$$(2) \quad b_1 + b_2 \therefore \sqrt{3} + 2 : 1.$$

From (2) $b_1 = b_2 (\sqrt{3} + 2)$ substitute in

$$\begin{aligned}
 (1). \quad b_2 (\sqrt{3} + 2 + 1) &= c\sqrt{2}, \\
 \text{or } b_2 &= \frac{c\sqrt{2}}{\sqrt{3} + 3}.
 \end{aligned}$$

$$\begin{aligned}
 \therefore b_1 &= \frac{c\sqrt{2}(\sqrt{3} + 2)}{\sqrt{3} + 3} \\
 \therefore \tan a &= \frac{b_1 - b_2}{\frac{c}{\sqrt{2}}} = \frac{c\sqrt{2}}{2} \cdot \frac{\sqrt{3} + 1}{\sqrt{3} + 3} \\
 &= \frac{c}{\sqrt{2}} \cdot \frac{c}{\sqrt{2}} = \frac{\sqrt{3} + 1}{\sqrt{3} + 3} = \frac{1}{\sqrt{3}}.
 \end{aligned}$$

$\therefore a = 30^\circ$ and angle $C B C' = 60^\circ$.

10. (a) Given a, b and C , write formula for finding A, B and c .

(b) The radii of two wheels, in the same plane are R and r , and a belt goes around them and crosses between them at an angle 2θ . Find the length of the belt, and show that the length is constant while the sum of the radii is constant.

10 (a) Book work.

(b) The length of the st part $= 2r \cot \theta + 2R \cot \theta = 2 \cot \theta (r + R)$.

Curved parts: Angle $P = \pi + 2\theta$ are subtended by this angle $= (\pi + 2\theta) (r + R)$. Total length $= (r + R) (2 \cot \theta + \pi + 2\theta)$ which is constant if $r + R$ is constant.

11. (a) ABC is an equilateral \triangle , and E , on BC is a vertex of the inscribed square whose side lies along AC . Show that $\tan EAC = \frac{1}{2}(3 - \sqrt{3})$.

(b) The altitude of a certain rock is a° , and after walking b feet towards the rock up a slope of β° to the horizon the altitude of the rock is then γ° . Find the vertical height of the rock above the first position.

11. (a) $\tan EAC = \frac{ED}{DA}$.

$$DC = x \cdot \cot c = x \cot 60^\circ = \frac{x}{\sqrt{3}}.$$

$$\begin{aligned}
 \tan EAC &= \frac{x}{x + \frac{x}{\sqrt{3}}} \\
 &= \frac{x}{x \left(\frac{\sqrt{3} + 1}{\sqrt{3} + 1} \right)} = \frac{\sqrt{3}}{\sqrt{3} + 1}.
 \end{aligned}$$

$$\therefore \tan EAC = \frac{3 - \sqrt{3}}{3 - 1} = \frac{1}{2}(3 - \sqrt{3}).$$

(b) Let $A+B$ be the two positions of the observer upon the inclined plane of $< B$, and let C be the top of the tower. Then the angle $ACB = (\gamma - a)$ and we have :

$$\begin{aligned}
 \frac{AC}{\sin \gamma} &= \frac{b}{\sin (\gamma - a)} \quad \text{or } AC = \frac{b \sin \gamma}{\sin (\gamma - a)} \\
 \text{and the height of the tower} &= AC \sin (a + B) \\
 &= \frac{b \sin \gamma \cdot \sin (a + B)}{\sin (\gamma - a)}.
 \end{aligned}$$

CLASSICS.

QUESTIONS IN JUNIOR LEAVING
LATIN.

LATIN GRAMMAR.

A.

1. Write down the nom. sing. of *virtute*, *corpore*, *plebi*, *nocte*, *multitudine*, *itinere*, *montibus*, *laude*, *caedibus*, *oratione*.

2. State the gender of each of the nouns in question 1, giving the rule in each case.

3. Write down the positive of *maximus*, *plurimus*, *optime*, *minimus*, *peissimus*.

4. Parse *faciet*, *fiat*, *feret*, *ferret*, *jaceat*, *jaciet*, *stet*, *audet*, *pendeat*, *victus*.

5. Give the principal parts of *cado*, *caedo*, *teneo*, *tendo*, *do*, *fungo*, *figo*, *queror*, *quaero nolo*.

6. Give an example of *ablative absolute*, *acc. with infinitive*, *indirect question*, *ut consecutive*, *ut final*.

B.

1. Parse the following words: *loquere*, *fugere*, *rapiere*, *hortere*, *audiat*, *faciet*.

2. Give the comparatives and superlatives of *felix*, *prudens*, *acer*, *nequam*, *magnus*.

3. Write out all the infinitive and participial forms of *fero* and *loquor*, with the English of each.

4. Translate *monituro moniturum*; *momenti monentes*; *audientibus audienda*; that they may go; he will be unwilling; that he may become.

5. Give the principal parts of *domo*, *veto*, *juvo*, *augeo*, *audeo*, *tego*, *texo*, *divido*, *queror*, *quaero*.

6. Give the gender of *incola*, *humus*, *domus*, *virtus*, *genus*, *iter*, *agger*, *pes*, *quies*.

7. How are *duration of time* and *extent of space* expressed in Latin?

Translate: He has not gone ten feet from the house for ten years.

8. Construct short Latin sentences to illustrate the construction of *jubeo*, *puget*, *opus*, *oportet*.

C.

1. Parse *ferat*, *feret*, *ferret*, *caedat*, *caedet*, *quaerenti*, *questurus*, *veneat*, *veniet*, *vixere*.

2. Give the principle parts of *sto*, *sisto*, *gaudeo*, *tego*, *texo*, *tango*, *meto*, *metior*, *pendo*, *orior*.

3. State the gender of *poeta*, *domus*, *i nago*, *multitudo*, *corpus*, *virtus*, *manus*, *grex*, *lex*, *mous*.

4. Give the genitive singular of *ego*, *idem*, *alius*, *quidam*, *quis*, and the meaning of each.

5. Explain the syntax of italicised words in:

(a) *Dimisso exercitu Romam rediit.*

(b) *Equum vendidit sex millibus sestertium.*

(c) *Equitatum auxilio Caesari miserant.*

(d) *Legatos pacem petitum misit.*

(e) *Quis regem occidisset rogavit.*

6. Construct short Latin sentences to illustrate the use of *qui* with the subjunctive.

D.

1. Decline throughout, with the adjective *nullus*, the following nouns: *dea*, *deus*, *senex*, *arx*, *portus*.

2. Give the degrees of comparison of *facilis*, *benevolus*, *nequam*, *parvus*.

3. Distinguish *hic*, *iste* and *ille*; *qui* and *quis*; *quidam* and *quisquam*.

4. Give in full the *imperfect subjunctive* of the following verbs: *vereor*, *possum*, *nolo*, *eo*, *fo*.

5. Give the principal parts of *juvo*, *caveo*, *gaudeo*, *fungo*, *pendo*, *orior*.

E.

1. Give the principal parts of *cado*, *caedo*, *tango*, *lego*, *vinco*, *vincio*, *vivo*, *meto*, *metior*, *orior*.

2. What verbs take (a) the accusative and infinitive for the English noun-class introduced by *that*, (b) *ut* with the subjunctive for the English infinitive?

3. Construct Latin sentences to show the syntax of (a) verbs of *fearing*, (b) verbs of *hindering*.

4. Give the forms used in Latin for the *negative imperative*. Illustrate.

5. Give examples of *historic inf.*, *final clause*, *ut consecutive*, *indirect question*.

Exercises Based on Bradley.

A.

Translate into Latin:

(a) I have heard that no one was willing to fight for the king.

(b) Let us ask how they intend to do it.

(c) The magistrates advised the people to put all the captives to the sword.

(d) They were afraid that the enemy was within the walls of the city.

(e) He thought that his son would die, though all the rest believed that he would live.

B.

Translate into Latin :

(a) I had long been waiting to see what was the meaning of that crowd.

(b) He asked whether his shield was safe and they answered "yes."

(c) Do not say that we have lost this golden opportunity.

(d) I believe that when the day was already won, he was killed by one of his own soldiers with a spear.

(e) He earnestly implored all students to remember that they were bound to work for the country in which they had been bred and born.

C.

Translate into Latin :

(a) Is it not of the utmost importance to the country that our statesmen should be men of ability ?

(b) Ask him whether it was not the height of folly to refuse to obey the law.

(c) He tried to persuade me that he had sold one speech for twenty talents.

(d) You ought to have warned him not to forget how much I had benefited him in his boyhood.

(e) The enemy's charge was so sudden that few of us could find our arms.

D.

Translate into Latin :

(a) I was afraid that they could not be prevented from taking the city.

(b) Have you heard that he ordered his soldiers to spare all the vanquished ?

(c) Do not lose this opportunity but find out now which of the two men has injured you.

(d) You might have told him that the best man you ever knew could not have finished that business.

(e) He exhorted them to keep (*se tenere*)

within the walls and persuaded them that the enemy would never attack the city.

E.

Translate into Latin :

(a) Thereupon, after saluting the general, he rode away without anyone answering him.

(b) Throwing themselves at the king's feet, they legged him not to destroy them.

(c) Nor should we listen to those who tell us that we ought to be angry with children.

(d) Let us ask him how he lived both at Veii and at Rome and when he set out from Utica for Carthage.

(e) He said that it was of the utmost importance what steps they took. Let them wake up at last and follow him. (*Or. obl.*)

CLASS-ROOM.

By GEO. B. DAVIDSON, Head Master Public School, Newcastle.

PROBLEMS IN ARITHMETIC.

1. If it be worth 90 cents per cord to cut a pile of cordwood which is 6 ft. high and 24 ft. long, into three lengths, what would it be worth to cut the pile of wood into four lengths at the same rate. *Ans.* \$6.07½.

2. If *A* can dig 10 post holes in a day; *B*, 15; *C*, 20; find the least number of post holes that will furnish an integral number of days labour for each, or for any two, or for all together. *Ans.* 3150.

3. How much water is there in a mix ure of 37½ gals. of wine and water, worth \$1 per gal., if 35 gals. of pure wine be worth \$43.75? *Ans.* 7½.

4. A man lost $\frac{1}{8}$ of $\frac{1}{2}$ of his money in addition to $\frac{2+\frac{1}{2}}{2+\frac{1}{2}}$ of his money, and then

he finds that he lost 30 cents more than he has left. How much had he at first?

Ans. \$1.80.

5. A grocer sells 9 dozen eggs for same amount as he gave for 10 dozen. How much of his outlay does he gain at this rate? *Ans.* $\frac{1}{3}$.

6. A man in harrowing a field walks 25 miles in a day. If his harrow be 9 ft. wide

and the farm worth \$55 per acre, find the value of the property harrowed each day.

Ans. \$1500.

7. If the population of a town increased each year of the first five years in a decade by $\frac{1}{10}$ of itself, what would it have to decrease each of the remaining years of the decade to show the same population as at first?

Ans. $\frac{1}{11}$.

8. A farmer takes to market 2,350 lbs. grain made up of equal quantities by measure of oats and wheat. He sells the former at 40 cents per bush., and the latter at 88 cents per bush. Find the proceeds of the sale.

Ans. \$32.

9. The floor of a skating rink which covers $\frac{1}{2}$ acre of land is flooded with water to the depth of $1\frac{3}{4}$ inches. If this freezes, how many tons of ice would the floor sustain, allowing water to expand $\frac{1}{10}$ in freezing?

Ans. $41\frac{1}{2}$ tons.

BRITISH NORTH AMERICA ACT: IV.—LEGISLATIVE POWER.

PETER MCEACHERN, B.A.

(*Continued*)

Constitution of Parliament of Canada:

17. "There shall be One Parliament for Canada, consisting of the Queen, an Upper House styled the Senate, and the House of Commons."

The Queen is represented by the Governor-General. The Senate was intended to be a check on hasty legislation, and a protection to interests that might be endangered under such a strict adherence to representation by population as prevails in the Commons.

Privileges, etc., of the Houses, as amended in 1875:

18. "The Privileges, Immunities, and Powers to be held, enjoyed and exercised by the Senate and by the House of Commons, and by the Members thereof respectively, shall be such as are from Time to Time defined by Act of the Parliament of Canada, but so that any Act of the Parliament of Canada defining such Privileges, Immunities and Powers shall not confer any Privileges, Immunities, or Power exceeding those at the

passing of such Act, held, enjoyed and exercised by the Commons House of Parliament of the United Kingdom of Great Britain and Ireland and by the Members thereof."

The privileges, etc., of Senators are not the same as those of the Lords.

A Senator or Member is exempt from arrest during the session, except by order of the House to which he belongs. It is important that, so far as is consistent with the maintenance of order in the Houses, the right of every constituency to continuous representation by the member of its choice should be protected. The Houses may suspend, expel or imprison a member. This power is used when gentler means for enforcing the authority of the Speaker fail.

The Privileges of the Senate and Commons may equal, but not exceed, those at any particular time enjoyed by the Commons of Britain.

The attempted arrest of the five members in the reign of Charles I., the difficulties between the Crown and Parliament in the reigns of James I., Charles I., Charles II. and James II., and the prosecution of Wilkes in the reign of George III. were leading causes for confirming a large number of the privileges, immunities and powers of the Commons.

First Session of the Parliament of Canada:

19. "The Parliament of Canada shall be called together not later than six months after the Union."

The Queen's Proclamation appointed the first day of July, 1867, "Dominion Day," as the date for the consummation of the Union. The first Parliament met in November of the same year.

Yearly Session of the Parliament of Canada:

20. "There shall be a session of the Parliament of Canada once at least in every year, so that twelve months shall not intervene between the last sitting of the Parliament in one session and its first sitting in the next session."

During the struggle of the Crown for absolute rule, from the time of Henry VIII. to that of James II. inclusive, Parliament was

summoned only when the sovereign could not do without its help. The first Parliament of Charles II. and James II. fortified these kings against the Houses, and the nation, by the grant of a revenue for life sufficient to carry on the government in time of peace. The first Parliament of William and Mary voted the Supplies and passed the Mutiny Act for *one year only*—a precedent

followed by all succeeding Parliaments—henceforth it became necessary to have a session of Parliament once a year in order to secure the legal maintenance of civil and military government.

The annual assembling of Parliament has been found so beneficial in Britain that special provision is made for it in the constitution of Canada.

CONTEMPORARY LITERATURE.

Goldthwaite's Geographical Magazine is a periodical that is often useful to teachers. Canada is not at all neglected in its articles.

THE *Eclectic Magazine* for June is, as usual, carefully made up. One can always depend on finding the very best stories in the *Eclectic*.

THE June number of the *Overland Monthly* contains an excellent article on volcanoes, entitled "Kilauea," by May L. Cheney. The short stories are particularly thrilling.

THE *Manitoban*, a Winnipeg magazine, promises well and should succeed in the West. Two serial stories are running, and articles of general interest are contributed.

Our Little Ones continues to do its own special work for the youngest children. It must be hard to find a child who cannot follow the meaning of the simple stories and the pretty pictures.

A SEASONABLE article on "Strawberry Dainties" is contained in the June *Table Talk*. The usual departments are full and helpful. There is a particularly sensible article on early breakfasts.

FINE paper and print is a noticeable feature of the *Shakespeariana Quarterly*. The frontispiece is the Crown Inn at Oxford. Ibsen is compared with Shakespeare by Thomas A. Price. A series of contributions to a History of Shakespearian Criticism is begun by George Hallam. Two other articles are on "Inigo Jones," and the old and later "King John."

"CROCUSES" is the title of a graceful poem from the *Spectator* in *Littell's Living Age*. The conclusion of the "Conversations and Correspondence with Thomas Carlyle" is given. "Kenyon's Innings," a short story from *Longman's*, is specially interesting. Other articles are "Early Railway Travelling" and "A New Star in Auriga."

"IN the St. Peter's Set," the opening short story in the June *Cosmopolitan* is a piece of fine humour by Thomas A. Janvier. Brander Matthews contributes an article on "Recent British Fiction," in which he takes the four most prominent books reviewed on all sides at present. "A Grand Ducal Family" treats interestingly of the Medici, and the "Aeroplane" follows up the object already declared by the magazine. "Maw," by Eunice Carew, is a short sketch in which humour and pathos are blended.

Moffatt's History Readers. Book II.—Early England. (London: Moffatt & Paige.)

First Report of the United States Board on Geographic Names, 1890-91. (Washington: Government Printing Office.)

Heath's Modern Language Series:

Exercises on French Composition. By A. C. Kimball. 12c. (Boston: D. C. Heath & Co.)

On Evolution, also Common Sense versus Criticism. Two Lectures by John Dignum, Warrington, England. (Toronto: Williamson & Co.)

Short Stories. Selected by J. M. Laine, M.A. 1s. (London: Moffatt & Paige.) A good collection of tales and anecdotes for reproduction as composition exercises.

Physical Education in the Public Schools. An Eclectic System of Exercises, including the Delsartean Principles of Execution and Expression. By R. Anna Morris, formerly Supervisor of Physical Culture and Reading, Des Moines, Iowa. (New York: The American Book Co.) \$1 00.

THE Chicago University Press is now in charge of the well-known publishing firm, Messrs. D. C. Heath & Co., of Boston. The departments of printing, bookbinding and selling, and the publication of periodicals, are all to be carried on, and the high reputation of the publishers is a fair augury of the success of the new University Press.

Graduated Mathematical Exercises. Second Series. By A. T. Richardson, M.A. 3s. 6d. (London: Macmillan & Co., and New York.) A useful collection of problems in Higher Algebra, Logarithms, Trigonometry, easy Mechanics, and Analytical Geometry selected from many sources and covering much mathematical ground. Some 6,000 problems are given and answers are appended.

A Short History of the English People. By John Richard Green. Illustrated edition, Part VIII. (London and New York: Macmillan & Co.) 1s. Part eighth of this edition brings the work down to the date 1261. Among the most interesting pictures are those of Old St. Paul's, Edinburgh and Stirling (after Turner).

Hints for Language Lessons and Plans for Grammar Lessons. (Boston: Ginn & Co.). At the request of many members of the profession, Principal McCabe has published some of his Lectures to the Students of the Ottawa Normal School. The Plans are exceedingly well arranged, and will be found of great assistance in primary work.

Heath's Modern Language Series:

A German Science Reader. By Prof. J. H. Gore. 80c. (Boston: D. C. Heath & Co.) As a preparatory Reader for those who look forward to scientific studies and the

use of technical German literature, this little book has a mission. The notes, introduction and vocabularies are carefully prepared and satisfactory, and the mechanical execution beautiful.

Elementary Classics. The Medea of Euripides. Edited by M. A. Bayfield. 1s. 6d. (London and New York: Macmillan & Co.) Another volume of the admirable Elementary Classics Series appears this month—the work of a scholar who is already well known as editor of other good annotated texts. All assistance necessary to young pupils is here rendered in the shape of notes, appendices, and vocabulary.

The Cambridge Bible for Schools and Colleges. General Edition. J. J. S. Perowne, D.D., Bishop of Worcester.

The Book of Ezekiel. Edited by Prof. A. B. Davidson, D.D., LL.D. (Cambridge: At the University Press.) The distinguished Edinburgh professor's old students and other readers of this series of text-books—now well-nigh indispensable to the host of English-speaking Bible students—will welcome the latest volume of the Cambridge Bible, which is really the first easily-handled good text-book on Ezekiel (a prophet whose writings are far too little read). The editor's Introduction and Note, will do for the general reader all that scholarship, judgment, and earnestness can do for him.

Handbook of Psychology: Feeling and Will. By James Mark Baldwin, M.A., Ph.D. (New York: Henry Holt & Co.)

"All the phenomena of consolidation (schöpfen 'downward growth') on the one hand, illustrate what is known as the law of Habit; all the phenomena of racialization ('upward growth') illustrate the law of Accommodation; and the result of the two together, as transmitted by generation, illustrate the law of Inheritance."

Such is the summing up on the two introductory chapters of the second volume of Prof. Baldwin's "Psychology," which equals, perhaps surpasses, the first volume, "Senses and Intellect," and will add to the brilliant reputation of the author, already an

authority on his chosen subject. Prof. Baldwin is thoroughly equipped for his work, original, direct and forcible in presenting his subject, and the result of his labours is a work which will advance the scientific study of Psychology, and open the way to further researches.

The Great Educators. Edited by Nicholas Murray Butler.

Aristotle. By Thomas Davidson. \$1.00. (New York: Charles Scribner's Sons.) "Still at the prophet's feet the nations sit." Still one learns wisdom from the Greeks, and this very interesting book covers much more than merely the life of a great teacher. It is a discussion, and an able one, of Ancient Educational Ideals, and as such should be read by every modern educator who can get it.

Macmillan's Greek Course :

Easy Exercises on First Greek Syntax. 2s. 6d. Rev. G. H. Hall, M.A. (London: Macmillan & Co., and New York.) Dr. Rutherford's First Greek Syntax met, of course, with great success, and the publishers now issue a book of exercises to accompany it, specially prepared by one of the assistant masters at Westminster. The plan of the book is good, exercises, vocabularies and rules being carefully prepared and useful for advanced pupils as well as for beginners.

Elementary Commercial Class Books. Introduction to Commercial German. By F. C. Smith, B.A. (London and New York: Macmillan & Co.) 3s. 6d. This work on Elementary German Grammar and translation marks, in some sense, a new departure. Its lines are broader, simpler, and more practical than the ordinary literary work, and hence it is a compromise between the "travellers' hand-book" model and the grammar of the schools. Each has its advantages, and this book is in many respects excellent. But one thinks with regret of education being commercialized—of a good book of this kind, with every necessary aid in the way of passages for translation, tables and vocabularies—yet, in the latter, there are hardly any adjectives, no names but commercial names, no word for girl, nose, idea, or love.

Macmillan's English Classics :

Tennyson. The Princess. Edited by Prof. Percy M. Wallace, of Aligarh. 3s. 6d. (London: Macmillan & Co., and New York.) This is one of the best numbers of the English Classics. Somewhat larger than most, it contains the general introduction to the study of Tennyson's poetry which has appeared in other volumes of the series. Then we have a genuine introduction of critical value which discusses the purport, method, style, characters, and songs. The notes are satisfactory and there is an index.

Selections from Goethe's Poetical and Prose Works. By Dr. Wilhelm B. Bernhardt. \$1.60. (Boston: D. C. Heath & Co. Goethe, "who wrote poetry because he lived it," who was "the soul of his century," a master worker, and one who had a style that Carlyle thought to be the most excellent that our modern world, in any language, can exhibit, can scarcely be studied by knowing any one of his works. This selection from his masterpieces is a most valuable one, containing subject-matter which is not detached or disconnected, but complete and characteristic, and the book is one which is sure to be a help both to instructors and students.

The British Empire: Its Geography, Resources, Commerce, Landways and Waterways. By Prof. Meiklejohn. (St. Andrews: A. M. Holden.) One may well feel, in examining this book, that it will advance the study of geography and citizenship. It is well and truly conceived in every part, it bears marks of research, industry, scholarship, sense and enlightenment, and those who use it can hardly help being benefited, even if they try. About one-fourth of the contents has already appeared in the "New Geography;" the rest is new. It is fresh and interesting in style, brought up to date, and full of quotations, allusions and hints, which teachers will find of great use. The comparative method is frequently used, diagrams and outline maps are given, and the amount of information, condensed and extremely well arranged, seems well nigh endless. We cordially commend the book to our readers.

Select Essays of Addison. Edited by Samuel Thurber. (Boston: Allyn & Bacon.) 80c. We have here the Sir Roger De Coverley papers, and selections from *The Spectator*, *Tatler*, *Guardian* and *Freeholder*, also "Macaulay's Essay on Addison" (somewhat shortened), and a few good notes, for the editor knows that notes are often a nuisance and an obstacle to a good teacher. The editor's part and the publisher's part are well done.

A Primer of English Verse. By Prof. Corson, of Cornell. (Boston: Ginn & Co.) The study of verse from an artistic standpoint and the consideration of the organic and æsthetic character of verse will receive an impetus, we think, from Prof. Corson's hand-book of more than 200 pp., modestly called a primer. The treatment of Tennyson's Stanzas, the Spenserian Stanza, Sonnets, and Blank Verse may be specially mentioned.

THE PROCEEDINGS of the First Annual Meeting of the National Conference on University Extension, held in Philadelphia at the end of last year, under the auspices of the American Society for the Extension of University Teaching, have just been published in the form of a goodly volume from the J. B. Lippincott Co.'s press. Mr. G. F. James, M.A., editor of our esteemed contemporary, *University Extension*, is the compiler, and those interested in education will be glad to know that the Addresses are now to be had in permanent form.

The Browning Cyclopedia. By Edward Berdoe. \$3.50. (New York: Macmillan & Co.) The Browning lover feels at home at sight of this book. Dr. Berdoe has already published two or more works on Browning, but this is the best—the most helpful. It explains allusions, deals with obscurities, gives briefly the plot or plan of the poems, and helps the student to follow the development of thought. It is nowhere overdone, and such a book was a necessity. There is a list of books useful to the Browning student, and a page of "unsolved difficulties," a chronology, etc. Our readers will

see that this cyclopædia is of real value and importance and likely to hold its place.

Clarendon Press Series :

An Anglo-Saxon Reader. By Henry Sweet, M.A., Ph.D. (Oxford: At the Clarendon Press.) 8s. 6d. Six editions of Prof. Sweet's reader have now been issued and the merit of the book are very generally recognized among scholars. The texts themselves are of great value, representative, authentic and original. But the Notes and Glossary, and, above all, the grammatical Introduction, treating of phonology, inflection, syntax, etc., etc., with a fulness, accuracy, and practical knowledge which is probably unexcelled in any similar text-book, form, of course, a great part of the book. The editor hopes to complete the revision at some future time; the demand for this edition came before it was completed. It is well that we have a revival of Anglo-Saxon study, and good workmen need good tools.

Clarendon Press Series :

Thomson. The Seasons and the Castle of Indolence. Edited by J. Logie Robertson, M.A. 4s. 6d. (Oxford: At the Clarendon Press). This is a volume to delight the eye of a book lover or student. In a pretty binding of olive green and gold, and faultless typography, this book, like all the other volumes of the Clarendon Press, has a tasteful and attractive appearance. In regard to the work of the editor, it may be said, in short, that it is of much more than ordinary importance, and that the notes are of great value. This is the only edition with adequate annotation of "The Castle of Indolence," and it is the best edition to be had of "The Seasons and the Castle of Indolence." There is an excellent introduction to each part of "The Seasons" and to "The Castle of Indolence," also a biographical notice in which Mr. Robertson has been able to correct errors appearing in other biographies of the poet. The illustrative and parallel passages, different readings, etc., are very helpful, and students of the University of Toronto and others who may find these poems among their prescribed work could not have a better edition.