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THE CANADA
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MARCH, 1888.

OUR WORK AND HOW TO DO IT.

BY REV. PROFESSOR WILLIAM CLARK, TRINITY COLLEGE, TORONTO.

[FOR THE MONTHLY.]

THE philosopher Kant, at the close of his great work, "The Critique of Pure Reason," has said that the ultimate object of all inquiry is to give replies to three questions: What can I know? What ought I to do? What may I hope for? The third question, Professor Huxley has said, we may safely leave, letting consequences take care of themselves so long as the actions are right. But in point of fact all these questions are resolved into the second of the three, What ought I to do? whilst the other two cannot be overlooked, since in some cases we can tell what is our duty only by considering the consequences of our actions, and in all cases our responsibility is limited by our knowledge and ability. It can be no man's duty to perform the impossible or the unknown. On the other hand, it is quite true that, when duty has become clear, we may safely leave the question, What am I to expect? to solve itself, which it will do with strict legality.

What ought I to do? What is my proper work in this world? No sane person doubts the importance, the

supreme importance of that question, since it does, in reality, contain within itself every other great question. "Know what thou canst work at," says Mr. Carlyle,* "and work at it like a Hercules." And further, this is a question which concerns every one, of whatever religious views or convictions. It has, of course, a very serious and solemn import to the Christian, since to him it is the same as inquiring what is his Father's will concerning him, a consideration which may and should become to him a thought of great joy. But it concerns every one who lives in human society, every one who acknowledges any duty to his fellow-men—nay, further, every one who expects anything of those who live around him, since he who depends upon the services of others can reasonably do so only as he is himself ready to yield service in return.

This, then, is the subject which is here proposed to be considered, the work which is assigned to us here on

* "Past and Present."

earth, what it is, how we may find it out, and how we may do it; and although several of the trains of thought will depend upon the belief in a Divine Providence, yet their essential truth will not be greatly affected by the adoption of other theories of life. To most of us, the belief in God seems to simplify much in human life and action, which otherwise would remain dark and complicated. Moreover, the manifestations of God in Christ and the record of Divine Revelation in Holy Scripture bring into clear light the notions of Divine government and grace which otherwise must have remained dim and uncertain. Still, a man will not escape from the obligation to work by refusing to acknowledge the great Taskmaster; and even he will be forced to ask the question, What is my place and work in human life?

1. We begin, then, by laying down the principle that every one is bound to do some work in the world—has actually some kind of vocation which he is bound to recognize and fulfil. And further, that the doing of such work is not only a man's bounden duty, but his greatest happiness as well. Great mistakes are made, and very false notions prevail on the subject of labour. It may be well to glance at them before setting forth the positive side of the subject. Labour, instead of being regarded as a blessing and a glory, is often looked upon as a misfortune. Idleness, which is one of the most shameful and disgraceful things in the world, is often considered to be a mark of distinction. In vain do Scripture, reason, experience denounce these fatal heresies. Human sloth, conceit, arrogance are often too strong to be overthrown by the power of truth. The poor man is apt to regard his daily labour as a simple misfortune or even as a curse, and to look with envy upon his better endowed neighbour who has no need to work

in order that he may live. He does not notice the penalty of idleness, he knows the inconveniences and ignores the unnumbered blessings connected with faithful toil, and he forgets how ill it has often fared with some of his class who have been suddenly relieved from the necessity of daily toil, and how seldom they have been made better or happier by the change.

A similar mistake is made by the wealthy man who despises the toiler, considers himself a superior person because he is under no necessity of labouring, and would regard work as of the nature of a personal degradation. Such an one forgets that it is to work that he owes his own emancipation from the necessity of working. It is labour which has accumulated the wealth by which he is supported; and in his stupid thoughtlessness he is despising the very power which has raised him to his place of pre-eminence and honouring the vice which has placed his brother beneath him in the social scale.

We find the same foolish errors illustrated in some men, drawn from that are called the higher ranks of society, but ill-provided with the means of maintaining their position. To such persons it is often very vexations to see their friends, their social equals, their nearest relatives, freed from the necessity of work, while they are forced to labour if they would live. It is a great hardship that there should not be, for such as themselves, some elegant sinecure offices which they could adorn without the necessity for painful or fatiguing exertion.

We cannot be quite sorry that, in the present day at least, there is very little compassion felt for these sufferers. At any rate we will waste no more time upon them, but only pass on to show the importance and the necessity of every one taking his share in the work of the world.

Work is the law of the universe. Even the agnostic recognizes the all-present and ever active energy of force; and the believer in God sees in all the forms and processes of nature the presence and the operation of God. "My Father worketh," said the Lord Jesus. He does not exempt Himself from this law of life. In all around us we see that activity is life, that inactivity is death. We cannot say that God conforms Himself to this principle; for the principle itself, as we behold it in nature, is but the expression of the Divine nature.

If man is made in the image of God, then his life and powers and energies must also go forth in work. He is a living being, and life means power, effort, activity. Every power must be intended for some use and purpose. All idleness is, as far as it goes, the neglect to use the powers with which we are endowed, and is, therefore, a frustration of the Divine intention as revealed in the constitution of our nature. And these truths are enforced by the history of mankind, whether as it is written on the pages of Scripture or as it is enacted before our eyes.

There is no place for idleness in the universe of God. Even rest is but a means of refreshment in order to fresh toil. "Six days shalt thou labour and do all thy work," is the precept embodied in that Commandment which bids us rest on the seventh day, and the requirement of labour is in no way, as some have foolishly thought and said, a punishment for sin. When man was created there was found for him a sphere of work. "The Lord God took the man, and put him into the garden of Eden, to dress it and to keep it." This employment was, in God's purpose and, in fact, a blessing, and was intended to bring many blessings in its train.

The same purpose was apparent after man had disobeyed the Divine command by refusing to heed the restriction which was laid upon the forbidden fruit. The ground was "cursed," but it was cursed for his sake. Labour had become toil, but that was because innocence had been exchanged for guilt, and guilt needed a sterner discipline. It may be that, through our personal sins and our social sins, the burden has often become so heavy as to be, in fact, insupportable and crushing. It may be that to some it has become more of a curse than of a blessing. But even as the world is now constituted, and as men live in the world, idleness is an endless evil and misfortune, and work a blessing.

If we pass from the actual man to the ideal man, the same lesson is enforced with increased solemnity. The Son of man, the representative of ideal humanity, was not born in a king's palace, nor laid in the lap of luxury, nor ever emancipated from the obligation of work. "My Father worketh hitherto, and I work." He was a working man, and so were all his truest and greatest followers. The chief of them all wrought with his own hands at the same time that he was doing the highest kind of work—work sufficient to engross all the energies of his nature. But to him no work came amiss which was appointed by God. And so it has ever been with the noblest and the best. They have felt, as we must feel if we would be like them, that the requirement of labour is as much a Divine command as any other; and that therefore idleness is not a meretricious fault, still less a permissible weakness, but a sin against God.

Arguments of this nature will appeal with varying force to different minds. But there are certain facts and principles connected with the nature and effects of labour which can hardly be

misinterpreted or misunderstood by the thoughtful observer, whatever his theological or religious position.

Thus it is quite certain and evident that exercise—or labour, which is the same thing—is indispensable, in order to the development and perfection of the powers with which we are endowed. It is by means of exercise that our bodily frame grows up to its normal size and proportions. Each limb puts forth its strength as it is called into exercise; and if any part or member of the body is neglected, it is stunted and maimed. So it is with the powers of the whole man, body as well as soul. We have only to let them lie torpid in order to paralyze them, perhaps ultimately to destroy them altogether. We must live before we can work; but life which does not express itself in work, in energy, speedily sinks into a state which is no better than death.

So, too, labour is a source of happiness, both negatively and positively. From our earliest days we have been reminded of the "mischief" which our adversary finds "for idle hands to do"; and there can be little doubt that many of us would have been better men if we had had more work on our hands, and many of us would have been worse men if we had had less. But this is only one, and the less important, side of the matter. There is a positive blessing and joy and delight in work. "We are accustomed," says a French writer, "to place idleness among the beatitudes of heaven; we ought rather to put it among the penalties of hell." It is no new discovery that action leads to happiness. It is indeed an argument as old as Aristotle, that it is for this reason that pleasure is essentially a good, because it is connected with the development of our being, and is the natural consequence of action.

"Pleasure," he says,* "finishes and completes the action. . . . It is an end which joins itself with the other qualities as bloom is joined with youth. Why is not pleasure continual? Because none of the human faculties are capable of continual action." On subjects like these there is hardly room for difference of opinion. It is not merely the reasoning of philosophers, but the experience of mankind which proves that the most perfect happiness results from the harmonious activity of the powers of our nature.

If we may add to these considerations, we should remind ourselves of one argument for labour which will never be ignored by our neighbours, however little they may be capable of entering into the philosophical aspect of the matter. Labour is a contribution which every one is bound to make to the supply of the needs of the world. And no one can refuse to pay this debt without incurring the charge of dishonesty. So long as we live we are sustained by the products of labour. We know that God could have made provision for us, as for the flowers of the field, without subjecting us to the necessity of toil. The fact that he has not done so is the best proof of the utility of labour. We are, then, not only breaking His law, we are also robbing humanity when we live on the fruits of other men's labours, and refuse to make any contributions of our own towards the general stock upon which all subsist.

We cannot better bring this part of our subject to a close than by quoting the well-known trenchant and pregnant words of Mr. Carlyle.† "Two men," he says, "I honour, and no third. First, the toilworn craftsman that with earth-made implement labor-

* *Eth. Nic.* x. 4, 5. Cf. Janet, *Theory of Morals* i. 4

† *Sartor Resartus*, iii. 4.

iously conquers the earth, and makes her man's. Venerable to me is the hard hand--crooked, coarse--wherein notwithstanding lies a cunning virtue, indefeasibly royal, as of the sceptre of this planet. Venerable too is the rugged face, all weather-tanned, besoiled, with its rude intelligence; for it is the face of a Man living manlike. Hardly entreated brother! For us was thy back so bent, for us were thy straight limbs and fingers so deformed.

. . . Yes, toil on, toil on; *thou* art in thy duty, be out of it who may; thou toilest for the altogether indispensable, for daily bread.

"A second man I honour, and still more highly: him who is seen toiling for the spiritually indispensable; not daily bread, but the Bread of Life. Is not he too in his duty; endeavouring towards inward harmony; revealing this by act or by word, through all his outward endeavours be they high or low? . . . If the poor and humble toil that we have food, must not the high and glorious toil for him in return, that he have light, have guidance, freedom, immortality? These two, in all their degrees I honour; all else is chaff, which let the wind blow whither it listeth."

2. So much may be said of work in general. We must now somewhat narrow our view, and remark that we have, each one of us, *some special work* to do in the world. Each one has his own place, his own circumstances, his own powers, his own opportunities. The world has need of a great many different kinds of work to be done, and there are persons qualified, in different ways, for the doing of them, distributed throughout the whole family of man. Sacred Scripture presents this thought before us in many varied forms. Men are called the stewards of God. The ministers of the Gospel are so in a peculiar sense; but all His servants and children have a ministry. To

each one is given his own proportion of talents, which he is to employ so that his Master may receive His own with usury. To each one there is something for his hands to do, and whatsoever his hand findeth to do, he is to do with his might.

In the early history of our race there was, of course, very little distinction of duties, very little of what we call division of labour. A man had to do almost everything for himself, instead of doing much for others, and having much done for him by others. Yet a certain division of labour must have come very early; and those who accept the Scripture narrative will see how naturally the division began. To the oldest son of our first parents was given his father's business of cultivating the soil. "Cain was a tiller of the ground." The farmer must always come first. He is the most ancient and the most necessary of all workers. The second son was appointed to take care of the flocks belonging to the first family. "Abel was a keeper of sheep." The shepherd quite naturally responded to man's second need. After the fruits of the earth men would make use of the milk and the wool of the flock.

Even at this early period it was a manifest convenience, if it was not yet an absolute necessity, that the spheres of labour should be separated. If both had been farmers and shepherds as well, the tilling of the ground and the tending of the sheep would have been worse done. In this early example of human life we have the principle of the division of labour. "When men began to multiply on the face of earth," it became more and more apparent that they could best promote their own well-being and the interests of others by taking some particular portion of the common work which was needful for the support of the race to which they belonged. Every succeeding age has seen

a further extension of the principle. Humanly speaking, the enormous population, growing day by day, could not be supported, without a return to something like savagery, unless this division of labour were observed.

It has, therefore, long been obvious that, if a man is to be of any considerable use to himself or the world, he must devote himself to some particular calling, and make himself, as far as he is able, skilled in some particular work. There cannot be many "admirable Crichtons" in the world. If it is no one's business to know everything, it certainly cannot be any one's duty to be able to do everything. A man who attempts it will generally end by doing nothing well. It is a fact, which has been too often observed, that a very considerable man, who might have done good and useful work for mankind, has failed to accomplish anything of permanent value, simply because he has lacked the concentration of mind and energy, or perhaps the self-denial, without which such work could not possibly be accomplished.

Such concentration of purpose and aim is widely different from that narrow sympathy and culture which can have no interest in the work of other men. There is perhaps no creature on earth more wearisome or trying than the man who can never, for one moment, forget his own business, or look at any other employment except in the light of his own. Yet, on the other hand, we can hardly withhold our admiration from those who make all their thoughts bend to their own special calling or work, even when they carry the tendency to excess. "This one thing I do" is a noble motto for the worker; but it is best

and noblest of all when it means not the neglect of the thoughts and purposes which are moving in the minds of other men, but the subordination of all thought and effort to the main object and endeavour of his own life.

It may be that the work which seems appointed for us has no ambitious character or splendid appearance which will dazzle the eyes of men or attract their admiration. It may be the simplest, the most obscure, and yet it may, for all that, be the most useful, and therefore the most dignified. Let young men and women lay this thought to heart. It is given to few of us to do a kind of work that will make us a great name in the world. It is generally wrong for us to desire such a name or the work that would bring it. It is the fulfilment of duty alone that can bring us true honour; and all fame or glory which comes to us in any other way is hollow and false.

Honour and shame from no condition rise;
Act well your part, there all the honour lies.*

And how shall we determine *what our work should be*? For many of us this is no longer an open question. We have already, some of us long ago, chosen our life's work, wisely or unwisely; and have been doing it, in some cases for many years, well or ill; and it is seldom wise for a man to change his profession. But there are others who have not yet made their choice; and some help may be given them towards forming a decision; and even if we have decided, we may amend some details in our work by considering the principles which should regulate such a choice.

*Pope, *Epist.* 4 l. 193.

(To be continued.)

THE McGill University has a larger number of students this year than ever before in its history. The success of the Donald Course is now assured, over a hundred female

students being in attendance at the classes. The McGill Normal School has also opened with an increase in the number of its students.

THE TENDENCY OF MATTER AT THE SURFACE OF
THE EARTH.

BY W. A. ASHE, F.R.A.S., QUEBEC OBSERVATORY.

[FOR THE MONTHLY.]

IT is a very popular belief, and one that is taught by all elementary text books bearing on the subject, that matter at the surface of the earth has a tendency towards the poles, because, as it is said, of the greater value of gravity there. That this belief is held by others than the unscientific the following quotation from Mr. R. A. Proctor's "Saturn and His System" will sufficiently prove, and it will serve to point out how general and unquestioned this belief is as well. He says:—"It appears probable that fluid masses on the surface of such a planet would tend to form two vast polar oceans, since gravity is so much greater at Saturn's poles than equator." Mr. Proctor is, of course, speaking of the tendency of matter at Saturn's surface; but the conclusion is equally applicable to the case of any heavenly body having a motion of rotation and, presumably, "compression," as he points out in the first part of the quotation I have used. It is evident that he attributes this tendency to the fact of Saturn's polar being less than its equatorial diameter, although he states it as though the effect were produced by the single fact of gravity being greater at the poles than the equator, a result that is present in every rotating sphere and which, as we know, does not produce a poleward tendency.

Mr. Proctor's statement rests on the assumption that, if an oblate spheroid is rotating about its minor axis, matter at its surface will have a tendency towards that point that is nearest to the centre of gravity of the assumedly homogeneous mass. Is this an in-

variable law? If it is true that because a planet's polar is less than its equatorial diameter matter at its surface will have an unbalanced tendency towards the poles, it is equivalent to saying (no argument having been advanced to prove a lessening of the diurnal motion), that matter having reached a certain position, in response to certain well-known forces and therefore more near to a condition of equilibrium, that then it will move, or have a tendency to move, towards the outline of the perfect sphere. When a sphere is rotating about an axis, we know that a result has been the shortening of the polar axis and a relative increase to the equatorial diameters; and further, if the particles of its matter are free to move in response to the forces thus generated, that they will have attained their position of equilibrium when the normal to the curvature at every point coincides with the vertical at these points. If the particles have not reached this condition of equilibrium their tendency must be equatorwards, and only in the case where we can assume that they have passed beyond, would it be possible to infer the poleward tendency. It is not reasonable to assume a poleward tendency as the result of a lessening of the diurnal motion, as we might, with equal certainty, assume an increasing value for it, as far as any evidence one way or the other shows. On the other hand, it seems probable that the diurnal motion is of a fixed value—fixed in so far as the most careful observations, admitting of the greatest exactitude, can dis-

cover ; seemingly pointing to the earth being in the middle period of its existence, of which the three stages are : "youth with increasing, middle age with uniform, and old age with decreasing velocity of rotation." We know that there are retarding, as we know that there are accelerating, influences acting on the diurnal motion, and with the want of evidence of change it is not improbable that these influences sensibly destroy each other.

As far as the limits of accuracy that the different methods admit of, which have been used to determine the figure of the earth, there appears to be a coincidence between the vertical and the normal to the mean curvature ; the irregularities in this mean curvature, although not conclusively pointing to any systematic departures from the true spheroid, allow of the assumption that there might be a small difference between the two, resulting in a correspondingly small tendency amongst the particles of matter in a direction which I shall try to prove, if it exists, must be equatorwards. It does not seem possible that a fluid mass, the rotational velocity of which is increasing, whilst the transference of its particles towards the equator is being effected, whilst radiation and consequent solidification—resulting in a lessening ability amongst the particles to respond to the translating force—are simultaneously proceeding, could by any possibility result in an over-developed planet. In any case we know that the solid of equilibrium for the molten earth is one having diameters of 230'231, whereas the present diameters are 299'300, conclusive evidence that we are not over-developed if the argument against the supposition of a decreased value for the diurnal motion holds good.

It would be possible to reason out a poleward tendency in the waters of the earth, if we could assume that

they occupied a spheroid of less corresponding diameters than those of the mean earth ; but this is not a tenable argument, because we know that the land above sea-level is much less in volume than the depressions below it ; this, together with the fact that the waters of the earth are of less specific gravity than the mean earth, obliges us to conclude that the surface of the water-spheroid is at a greater distance from the centre of the earth than the mean surface of the same from the same ; therefore, whatever the amount of the tendency on this account, its *direction* must be equatorwards.

It is not possible to produce evidence of the direction of the actual movements in the waters of the earth, because of the impossibility of distinguishing between the effects of local and what might be distinguished by the term of "physical" disturbances. The evidence at the present, obtained from observations extending over a hundred years, proves that the waters of the earth are leaving the arctic circle at a rate of about four feet a century ; and although this is not advanced as proof that there is a physical tendency equatorwards, it is meant to point out that there is no present evidence for the direction of the assumed tendency.

In conclusion, I do not see that there is a single argument to support this supposed poleward tendency, unless the assumed existence of a "vast polar ocean" in the arctic regions can be accounted such ; for if there is a so situated "ocean," is it not equally certain that there is a vast Antarctic "continent ?" Even granting the existence of vast polar oceans in both situations, we might as reasonably infer an equatorial tendency from the presence there of the vast bodies of water that we know of, with this difference, however, that in one case we are arguing from a known existence,

in the other from an assumed one. There was a time, and not so many years ago, when, in accordance with the statement quoted, it was assumed that the earth's atmosphere had its greatest depth at the poles; an opinion that prevailed until the careful compilations of Buchan proved that the tendency in the atmosphere was to collect about the equator, or more strictly speaking

in such an order that the minimum pressure is at the poles, the maximum at about lats. 40°, with a belt of less pressure at the equator; and although it may not be possible to argue a corresponding arrangement for the waters of the earth, it seems evident that if we must attribute to matter a tendency, that its direction is towards the equator.

THE PLACE OF LITERATURE IN THE COLLEGE COURSE.

BY HOMER B. SPRAGUE.

(Continued from page 64.)

HISTORICAL study has always and deservedly been regarded as of importance in a college course. However it may have been formerly, as in the case of natural science, it is hardly possible now that it should here take the form of extensive special examination and critical analysis of minute and multifarious phenomena and documents in limited fields. Rather it must give itself to the investigation of general laws and a synthesis of results on a large scale, and so work out a philosophy of history. In either case, though these studies contain the material from which wisdom may be sublimated, they do not often contain much less impart, inspiration. We need all three: the knowledge, the wisdom, the inspiration; but especially the last, the high resolve and heroic action growing out of transcendent wisdom.

In connection with historic studies, and to some extent with the study of literature, some practical skill in statecraft should be secured by every student. There is pressing need of this. "A state," says Milton, "ought to be as one huge Christian-personage, one mighty growth and stature of an honest man."

Few would diminish the time and pains given to mathematics or to mental or moral philosophy. Perhaps the greatest danger here is somnolence.

Something may be subtracted from the time usually devoted in college to languages. Philosophy and the science of language may well receive attention; and incidentally there will come, with a study of the great models of literary excellence, a rounding out and a finishing up of linguistic work previously begun. But all elementary study of languages ought to be remanded to the secondary schools, and the whole method of the acquisition of ancient and modern languages should be radically changed. To spend six, five, or even four years in obtaining sufficient Latin and Greek for the profitable pursuit of appropriate college studies is largely a waste of time and energy. By proper instruction, by careful and wise direction of labour pursuing but one language at a time, by contagious ardour caught from the teacher, by judicious assistance daily rendered, by discarding unimportant detail and trivial exceptions, and by remembering ever that the object is to enable the stu-

dent to translate from the ancient language into the English and not the reverse, fully one half of the time ordinarily spent on these studies can be saved. One year rightly used would suffice for Latin, another for Greek, and one each for French, German, and Italian, giving, also, facility in speaking the modern tongues. The time will come when colleges will cease to require candidates not only to be crammed with mere grammatical husks, but even to discriminate among the Attic husks and Ionic husks and Epic husks, as an indispensable prerequisite to admission; and when they will discontinue that unnutritious diet after matriculation, and in this busy world no longer spend month after month in assiduously uprooting tares and thistles in the hopeless attempt to raise a crop of purely classic husks. "I won't answer any more such nonsense!" said a now famous journalist, inserting an ungentle epithet before the word "nonsense," to the college tutor who, neglecting weightier matters, was torturing him in class recitation, filling his skin with the sharp prickles of Greek accents, impaling him on oxytones and paroxytones and proparoxytones, plying the twists of perispomena and properispomena, tearing his flesh with sarcastic questions about final clauses. Tradition has it that he was obliged to leave Alma Mater, but soon found consolation in a handsome salary as foreign correspondent of a leading New York newspaper.

To furnish the equipment our young men need for active service in the cause of humanity, there is perhaps no other preparation so valuable as the study of the greatest works of the greatest authors. I know there is a prevalent notion that literature is not strengthening. Many years ago I heard a distinguished scholar couple the words "weak" and "literary" as if they belonged together; but his own example proves the contrary; he

is both literary and strong. Shakespeare's training, like that of all great writers who preceded him in ancient or modern times, and he was a good business man, was wholly literary rather than scientific. What did Alexander the Great not owe to Homer? Cæsar knew nothing of what we call science. Napoleon fed on Plutarch more than on gunpowder and mathematics. Milton was chiefly indebted to Homer, Hesiod, Æschylus, Sophocles, Euripides, Ovid, Virgil, Spenser, and Shakespeare; Chatham, Burke, and Webster, to Milton; Rufus Choate, the foremost jury lawyer of the past generation, to all of these. The foremost practical statesman in England to-day is the man of letters, William E. Gladstone; the foremost statesman in Europe to-day is a graduate of two universities, Prince Bismarck; the foremost lawyer in America to-day bore off the highest honours for literary excellence at Yale just fifty years ago, and is said to have continued his classical studies ever since, William M. Evarts; one of the ablest of the many able Ministers who have represented America at the Court of St. James is our foremost man of letters to-day, James Russell Lowell; our smartest—I use the term designedly—living statesman possesses rare literary skill, James G. Blaine. These examples show that the practical cutting edge of tact is not less keen when it has a heavy backing of solid learning. Did not the pen of Moses largely shape Hebrew civilization? In Greek life, and even in Roman, did not the Iliad and the Odyssey exert enormous power? Is not our highest modern civilization the outgrowth of the Bible? Wordsworth never uttered profounder truth than when he wrote,

We must be free or die, who speak the
tongue
That Shakespeare spoke, the faith and
morals hold
That Milton held.

The Bible, Shakespeare, Milton— whoever will thoroughly master these three will have a better business education than nine-tenths of our college graduates; for he will have a knowledge of human nature, a knowledge that is better preparation for success than a knowledge of all the laws of matter and all the processes of machinery and all the tricks of trade.

But business success is not the principal thing. Nor is the chief object in the study of literature to gain just canons of criticism, important as these are; nor to memorize precious passages that will fulfil the triple function of a touchstone, a key-note, and "a joy forever." Nor is the chief object to learn the history of literature, nor the opinions of any man or set of men about literature or about any portion thereof or about the man who produced it. A little of the flavour of the historic sea in which the shell-fish grew; a little of the pepper and salt of wise criticism; a little of the personal history of the bivalve, if we can get it; may not be amiss; these may whet the appetite or enhance the relish; but they are no substitute for the oyster itself.

Neither is the chief object to learn etymology, or syntax, or prosody, or rhetoric, or philology, or logic. These indeed are very valuable, and may perhaps be studied best by making a great author's text the basis of investigation. Our schoolmasters have often builded vastly better than they knew, when they made us painfully parse Milton's Lycidas, Pope's Messiah, or Coleridge's Hymn to Mont Blanc. While we were intently listening to find grammatical concords, as if that were the chief business of life and our teacher seemed to think so, we heard faintly at first but by-and-by more clearly the divine harmony that breathes through those immortal lines, and that could never be rendered entirely inaudible by the noisy machin-

ery of gerund-grinding. While we hacked and hewed and bunglingly dissected the apparently lifeless form, to discover and label etymological tissue, syntactical sinews, logical bone-frame, the *caput mortuum* gradually became a thing of life and beauty, as the cold marble under Pygmalion's chisel grew warm with immortal loveliness.

Neither is that graceful utility which Cicero points out in his oration for Archias, the main thing; the solace, the ornament, the light, the companionship, the serenity of soul which these studies bring. Lowell somewhere prettily says, and the value of the remark can hardly be overestimated: "If they do not help us get bread, they sweeten all the bread we ever do get." This result is very precious, but still secondary; we are here to diffuse, not to monopolize, sweetness and light.

To create and maintain in every student the highest ideal of human life is, or ought to be, the chief work of any college. There is no study like that of the best literature to form and glorify such an ideal. It reveals possibilities, touches to finer issues, broadens thought, kindles faith, sets the soul free, quickens and greatens, as nothing else can. Get near Homer and Demosthenes and Thucydides and Plato and the Greek tragedians; get near Virgil and Lucretius and Cicero and Tacitus; if you would know

The glory that was Greece, the grandeur that was Rome.

Arm in arm with a universal author, you are in living contact with the great facts and laws of nature and of human existence; you see them from the master's lofty standpoint and your life is larger than before. A single paragraph of Burke, if chewed and digested and assimilated, much more a great oration like his speech on

Conciliation with America, can hardly fail to broaden the horizon and liberalize the soul. Even the daily speech of our fathers, unlike the flippant nothings that fill our mouths, was tinctured with dignity and grace, caught from the fewer but better books with which their minds were saturated, and from companionship with the Chrysostoms and Burkes and Websters, the Shakespeares and Miltons and Johnsons, and the heroic beings that were the children of their brain. He that walketh with wise men shall be wise. The great authors give us their children and give us themselves.

Ever their phantoms arise before us,
Our loftier brothers, but one in blood ;
At bed and board they lord it o'er us
With looks of beauty and words of good !

My time has expired, and I must not now discuss at length the question, How ought the great masterpieces to be studied? It is easier to tell how not to do it. In one of our foremost universities two or three years ago, I was present at a class exercise. They were reading a great writer's works. One member, evidently among those most interested,—for he occasionally glanced at his book,—lay flat on his back at full length directly in front of the distinguished professor and within fifteen or twenty feet of him. The attitude was symbolic ; the example was contagious. Was I dreaming? I have been present at many "performances" in English literature in school and college during the last twenty or thirty years, but never at one so dull and dead, nor have I ever breathed an atmosphere more somniferous out of a Chinese "opium joint."

Above all other men the teacher of literature should be intensely alive, not a cistern of stagnant knowledge, but a battery of communicative lighting ; the incarnation of tact and

vigilance and energy ; making every class-exercise a work of high art ; seizing instantly the heart of every passage, placing it in vital relation and proper perspective to the writer and the whole composition, focusing all eyes of students upon it, irradiating the subject with flashes of wit, wisdom, poetry, eloquence, parallels drawn from far and near, till the whole masterpiece blazes with all the fire and force and beauty that filled the soul of the author himself.

One word more. The course in literature should begin in the primary school, or even in the kindergarten, with memorizing of the choicest simple pieces. Always the greatest pains should be taken in the selection of passages. This exercise in memory should be carried on continuously and progressively through the grammar schools, with some attempt at logical method—analysis of beauty—in the higher grades. In the high school, it should take the form of thorough study of some of the simpler masterpieces, like Gray's *Elegy* and Scott's *Talisman*. Milton's *Comus*, Wordsworth's *Ode on Intimations of Immortality*, Shakespeare's *Merchant*. By thorough study is not meant counting syllables nor scrutinizing orthography, nor affixing a grammatical label to every word, nor distinguishing colons from semicolons, nor tabulating lines spoken by different characters, nor deciding whether the author uses "his" for "its" a hundred times or only ninety-nine or has seventy-five Anglo-Saxon roots to every twenty-five Latin ; nor whether he planted a mulberry tree, or paid taxes with the right hand or the left, or had a short nose and a long upper lip, or spoke with mysterious meaning when he said, "It is a wise father that knows his own child ;" but to seize, ponder, understand, enjoy, and hold fast, as an inspiration forever, all that is beautiful or noble or precious in the work under con-

sideration. In college, some great work of one of the world-authors—Greek, Latin, Italian, French, German, or English—should be constantly under investigation in a weekly, semi-weekly, or, better still, a daily, exercise through the four years. Skill being exercised in so marking out the succession that the study may not only progress from the less to the more difficult, but that a tendency towards goodness and greatness may be ever more and more confirmed; the teacher, to use the language of Milton, “tempering them such lectures and explanations, upon every opportunity, as should lead and draw them in willing obedience, inflamed with the study of learning, and the admiration of virtue, stirred up with high hopes of living to be brave men and worthy patriots, dear to God and famous to all ages.”

Well did the ancients call this and kindred studies the *Humanities*. For, as we have seen, the prime quality of all literature worthy of the name is its deep hold of man as man; and the best is that which appeals most strongly to the highest human qualities; and the special object in view in the study should ever be perfect manliness and womanliness; and the chief joy that accompanies is in the

association with heroic manhood and angelic womanhood; and the best result is unselfish service enriching mankind; and the one thing indispensable in him who would teach it is that he be sympathetic, large, sweet-souled, thoroughly equipped, intensely alive and true. Manliness, in the best sense, is godliness. With the conception of the possible union of the human and the divine, poetry passes into religion; for in that vision which Lowell declares to be the sublimest reach to which poetry has risen, the last lines of Dante's *Paradiso*, beginning,

Within the déep and luminous subsistence
Of the High Light appeared to me three
 circles
Of threefold colour and of one dimension.
And by the second seemed the first reflected
As rainbow is by rainbow, and the third
Seemed fire that equally from both is
 breathed.

—in this wondrous vision, where the High Light is the very substance of God, and the three luminous revolving circles symbolize the Trinity of the Eternal Power, the Eternal Love, and the Eternal Wisdom, Dante tells us that, after gazing for a time on the three, all his sight was gradually absorbed in the second; for there he saw painted our image, the image of *Man!*—*Education*.

THE ART OF TEACHING.

BY ALBERT G. BOYDEN, BRIDGEWATER, MASS.

PERSONAL QUALIFICATIONS OF THE TEACHER.

WHAT manner of man should he be, what manner of woman should she be, whose life is to affect so many young lives with a great power for good or evil; whose spirit is to be imbibed by them, whose moral character is to be impressed upon their moral natures, whose lov-

ing and hating is to set the current of their affections, whose taste is to have so much influence in forming their tastes, whose intellectual peculiarities are to guide their intellectual activity, whose personal habits are to be a constant help or hindrance in forming good habits, and whose personal bearing is to touch in them the springs of attraction or repulsion?

The teacher and his art are so closely related, the art is so much in the teacher, the use of all the means by which right activity in the child is excited and sustained depend so entirely upon what the teacher is in himself, that we cannot properly consider the art of teaching without first considering the personal qualifications of the teacher.

The unspoken, unconscious influence of the teacher, which gives tone, quality, power to all his instruction, enters so much more deeply into the life of the child than what he says, that we cannot emphasize too strongly the necessity of personal fitness in the teacher for his work. He needs to magnify his work, he must have a high ideal to stimulate him to his best effort or he will give way to, or be overcome by, the many difficulties, the depressing influences from within and without, the petty details, and the trials of patience, which he must meet in the performance of his daily work.

THE RIGHT SPIRIT.—There are those who enter the school-room saying, "I will do simply what is required." They feel that they have done their whole duty, according to their business contract, if they secure regular attendance, keep good order, and hear their pupils recite their lessons in all the branches of the prescribed course. They "keep school," thinking of the benefits which shall accrue to themselves. Others come to their work seeking to control their pupils by right motives, to train them to good behaviour, and to teach all the subjects in the school course in the best possible way. These "teach school," aiming to secure to their pupils good manners, intellectual power, and well-digested knowledge. There are others who seek to conduct their schools so as to educate their pupils, by bringing the higher principles of action which men have learned from God, or from experience,

to bear first upon their moral and spiritual being, so that they shall love and hate aright, shall choose the higher good, and the right course of action, and by training the intellect and the body so that they shall be instruments of power in carrying on the work of a true life.

The spirit which should actuate the true teacher, in the words of another, is "a spirit that seeks not alone pecuniary emolument, but desires to be in the highest degree useful to those who are to be taught; a spirit that elevates above everything else the nature and capabilities of the human soul, and that trembles under the responsibility of attempting to be its educator; a spirit that seeks that highest of all rewards, an approving conscience and an approving God; a spirit that earnestly inquires what is right, and dreads to do what is wrong; a spirit that can recognize and reverence the handiwork of God in every child, and that burns with a desire to be instrumental in training it to the highest attainment of which it is capable. Such a spirit is the first thing to be sought by the teacher, and without it the highest talent cannot make him truly excellent in his profession." With such a spirit the teacher will love his work, will have a strong personal interest in his pupils, will be willing to work, and willing to sacrifice for their welfare. It is the spirit of living for others rather than for self; of seeking to make other lives, fuller, richer, through our life.

It is important that the teacher should remember the ways in which his spirit is unconsciously expressed. The first is in his temper. His inner feeling, through all its delicate shadings from anger to amiability, is going out from him through all the day like fragrance from a flower, and insensibly affecting the feeling of every pupil. His face is another avenue of expression. How intently the young child

studies the expression on his mother's face which wakes the feeling of joy or sadness in his young heart! How readily the pupils of every village schoolmaster read "the day's disaster in his morning face!" "The eye itself alone, in its regal power and port, is the born prince of a school-room." The voice, in its tones, its quality, volume, pitch, force and modulation, consciously reveals the spirit of the inner man or woman. The manner is another open way for the unconscious expression of the inner life. Every sign, movement, attitude, tells its story to the child, who is always ready to receive the message. It is what the teacher has become as the product of all his foregoing life that thus finds unconscious expression in all these ways.

SELF-CONTROL is next in importance. It is that power of will which enables one to rule himself, to control his feelings and his tongue under sudden and strong provocation, which makes him "swift to hear, slow to speak, slow to wrath," which holds the reins upon the natural impulses of appetite, desire, or affection, to command his intellect and his body so that he can make the best use of them as the occasion calls. This silent power of self-possession constantly manifested commands the respect, esteem, and faith of the pupil, and moves him to like endeavour.

CHEERFULNESS in the teacher is to the school life of his pupils what the sunshine is to the growing plants. The cheerfulness which comes from a sunny disposition, good digestion, sweet sleep, and bodily vigour, which looks on the bright side of everything, gives colour and smoothness to school life as marked and as beautiful as that which the sunlight gives to the foliage of the trees. The teacher who brings to his pupils the cheery words, the pleasant smile, the kindly interest in their sports, who is not afraid to share a

hearty laugh with them when it comes in opportunely, commends himself, his requirements, and the work of the school to his pupils in a way which meets with a ready response from them.

SYMPATHY, the power to enter into the feelings and ways of children, is indispensable to success in teaching. The little child runs to his mother when he is in any kind of trouble because he knows she will enter into his feelings and soothe his troubled spirit. Many a teacher of limited intellectual attainments has secured excellent work from pupils because he made each one feel that he had a personal interest in him. Many a teacher of brilliant intellect and ready wit, but tempered with sarcasm, has failed to gain the hearty co-operation of his pupils. They admired his learning, but were afraid of him. Teacher and pupil must be in sympathy.

QUICKNESS OF PERCEPTION.—The teacher has to arrange and assign full work to each member of the class and school, and follow each pupil to see that it is well done. To this end his lines of communication with each pupil, which are through sight and hearing, must be maintained unbroken through the class exercise and the school session. His position must be where he can see every eye in his class and in the room, every act and movement which takes place. In the class exercise he must watch every face in the class, to observe the action of each mind and to see the effect of what he says and does. He must be able to instantly fix his gaze upon any pupil who needs correction, and as quickly to transfer and fix his attention upon any other. He must be quick to see.

The teacher must notice every sound, promptly distinguish between the necessary noise of school work and that which ought not to be, and check the latter. He must attend to

every word and tone of the pupil as he speaks, that he may secure correct thought and expression. There can be no prompt obedience, no live teaching, no thorough training, unless the teacher is quick to see and hear.

GOOD JUDGMENT.—The teacher is called upon to decide promptly what is best, what is right, what ought to be, in the selection of the proper objects of thought for teaching in their arrangement in the natural and logical order, in directing the observation, thought and expression of his pupils,

in the use of motives, in managing the school, in all his dealings with his children. If he judges wisely concerning all these matters, everything goes on well; if unwisely, trouble comes.

No person should attempt to teach without having, to the full measure of his ability, these most important personal qualifications; and if he is not conscious of possessing them in a good degree, let him not enter the school-room as a teacher; it is a grievous wrong to the child.—*Journal of Education.*

BEECHER'S LAST WORDS.

THE following article, from the pen of the late Henry Ward Beecher, was written by him only a fortnight previous to his death, and was published in the *Brooklyn Magazine*:—

“Old age has the foundation of its joy or its sorrow laid in youth. Every stone laid in the foundation takes hold of every stone in the wall up to the very eaves of the building; and every deed, right or wrong, that transpires in youth reaches forward and has a relation to all the afterpart of man's life. A man's life is not like the contiguous cells in a bee's honeycomb; it is more like the separate parts of a plant which unfolds out of itself, every part bearing relation to all that antecede. That which one does in the youth is the root, and all the afterparts, middle age and old age, are the branches and the fruits, whose character the root will determine.

“Every man belongs to an economy in which he has a right to calculate, or his friends for him, on eighty years as a fair term of life. His body is placed in a world adapted to nourish and protect it. Nature is con-

genial. There are elements enough of mischief in it if a man pleases to find them out. A man can wear his body out as quickly as he pleases, destroy it if he will; but, after all, the great laws of nature are nourishing laws, and, comprehensively regarded, nature is the universal nurse, the universal physician of our race, guarding us against evil, warning us of it by incipient pains, setting up signals of danger—not outwardly, but inwardly—and cautioning us by sorrows and by pains for our benefit.

“Every immoderate draft which is made by the appetites and passions is so much sent forward to be cashed in old age. We may sin at one end, but God takes it off at the other. Every man has stored up for him some eighty years, if he knows how to keep them, and those eighty years, like a bank of deposit, are full of treasures; but youth, through ignorance or through immoderate passions, is wont continually to draw checks on old age. Men do not suppose that they are doing it, although told that the wicked shall not live out half their days.

“Men are accustomed to look upon

the excesses of youth as something that belongs to that time. They say that of course the young, like colts unbridled, will disport themselves. There is no harm in colts disporting themselves, but a colt never gets drunk. I do not object to any amount of gaiety or vivacity that lies within the bounds of reason or of health; but I do reject and abhor, as worthy to be stigmatized as dishonourable and unmanly, every such course in youth as takes away strength, vigour, and purity from old age. Every man that transcends nature's laws in youth is taking beforehand those treasures that are stored up for his old age; he is taking the food that should have been his sustenance in old age, and exhausting it in riotous living in his youth. Mere gaiety and exhilaration are wholesome; they violate no law, moral or physical.

"I do not object to mirth or gaiety, but I do object to any man's making an animal of himself by living for the gratification of his own animal passions. People frequently think to require in the conduct of youth that which we expect in later life has something of Puritanism in it. Men have an impression that youth is very much like wine, crude and insipid until it has fermented, but when it has fermented, and thrown down the lees, and the scum has been drawn off, the great body between is sound and wholesome and beautiful.

"I am not one that thinks so.

"I think that youth is the beginning of the plant life, and that every wart or excrescence is so much enfeeblement of its fruit-bearing power. I do not believe that any man is the better for having learned the whole career of drunkenness or of lust, or the dallies or indulgences that belong to a morbid life. A young man that has gone through these things may be saved at last; but in after life he has not the sensibility, nor the

purity, nor the moral stamina that he ought to have. He has gone through an experience but for which his manhood would have been both stronger and nobler. Excess in youth, in regard to animal indulgences, is bankruptcy in old age.

"For this reason I deprecate late hours, irregular hours or irregular sleep. People ask me frequently, 'Do you think there is any harm in dancing?' No, I do not. There is much good in it. 'Do you, then, object to dancing parties?' No; in themselves I do not. But where unknit youth, unripened muscle, unsettled and unhardened nerves are put through an excess of excitement, treated with stimulants, fed irregularly and with unwholesome food, surrounded with gaiety which is excessive and which is protracted through hours when they should be asleep, I do object.

"The harm is not in the dancing itself; for if they danced as do the peasants, in the open air, upon the grass under the trees and in the day, it might be commended, not as virtuous, but as still belonging to those negative things that may be beautiful. But the wassail in the night, the wastefulness—I will not say of precious hours, for hours are not half so precious as nerves are—the dissipation, continued night after night and week after week through the whole season, it is this I deprecate as eating out the very life. I am not superstitious of observances, but I am always thankful that there are forty days of Lent in the year when folks can rest from their debauches and dissipations; when no round of excessive excitement in the pursuit of pleasure is permitted to come in and ruin the health and cripple the natural powers of the young.

"The appetites of youth, which, either in social or in solitary life drain down the vitality and impair the con-

stitution, are so many insidious assaults on old age. I would that the young knew how clearly these things are written. God's handwriting is very plain and very legible to those who have eyes to see. There is not an intelligent physician that does not read as he walks through the street, the secret history of the lives of those whom he meets, and that, too, without following them in their midnight career. I care not to have men come to me and state their secret courses; I can read it in the skin and in the eye.

"There is not one single appetite or passion that has not its natural language, and every undue indulgence of that appetite or passion leaves that natural language more or less stamped upon the skin, upon the features, upon the expression of the face or the carriage of the body.

"There is always some token that tells what men are doing, if they are doing anything to excess.

"Pride has its natural language; mirthfulness has; goodness has. Nobody doubts this.

"So have the passions their natural language.

"Men think that if they commit their wickedness in secret places or in the night that it is not known. It

is known, although no man may ever say to them: 'Thou art guilty.'

"The use of stimulants in youth is another detraction from happiness in old age. Men usually take what they least need. In other words, we follow our strongest faculties and not our weaker ones, and, therefore, if men are excessively nervous, they almost invariably seek to make themselves more so.

"I rejoice to say that I was brought up from my youth to abstain from tobacco. In rare cases, where there is already some unhealthy or morbid tendency in the system, it is possible that it may be used with some benefit, but, ordinarily, it is unhealthy.

"I believe that the day will come when a young man will be proud of not being addicted to the use of stimulants of any kind.

"I believe that the day will come when not to drink, when not to use tobacco, not to waste one's strength in the secret indulgence of passions, but to be true to one's nature, true to God's law, to be sound, robust, cheerful, and to be conscious that these elements of health and strength are derived from the reverent obedience to the commandments of God, will be a matter of ambition and endeavour among men."

THE CAUSE OF FAILURE.

TEACHERS succeed and teachers fail. It would be strange indeed, if, among the multitude of teachers in this country, with their varied attainments, dispositions, idiosyncrasies, habits of life, and social surroundings there would not be many who drop by the wayside, with the charge of incompetency scored against them, not only by school magnates, but by the severe judgment of the great public.

By teachers, we do not mean those who take up the business as a temporary employment, nor those who attain certificates by cram, and positions by political intrigue and favoritism, but rather the men and women who have had a full course of preparatory training in institutions especially organized for that purpose, and who should, consequently, be successful from the beginning. The scholarship is unquestioned, the special prepara-

tion admitted, and yet large numbers of such persons fail to become teachers in any sense of the term.

Rejecting those with peculiarities of temperament, nervous and otherwise, who have had no opportunity of being fully tested, until they had been brought face to face with the little world that they were expected not only to conquer but to train; rejecting those possessing physical infirmities which always unfit the possessor for successful work in the school-room; rejecting the indolent, the apathetic, the ambitious to shine in other more lucrative fields of labour; rejecting those who willingly submit to the seductive influences of social environments with their powerful temptations, there still remain those who fail.

Given two teachers equally equipped with mental and bodily powers, both equally desirous of succeeding from ambitious and pecuniary motives, both equally industrious and energetic: one succeeds and the other fails. We can account for the success of the one, and the failure of the other, only from the presence or absence of proper standards or models of excellence. Vagueness of purpose, indirectness of aim, will be followed by indecision in action, vacillation in desire, failure in result.

The teacher who has no fixed standard, tests every catch-penny method that presents itself to his notice through the columns of the educational press, or that is rehearsed at teachers' institutes, hoping that success will lie in one of the tested methods. He experiments in rewards of varied kind and degree, in punishments as varied and novel as human ingenuity can suggest. He has methods of drill, methods of study, methods of recitation, methods for his and for that, fickle as fortune, running the gamut of changes from low to high, and high to low, untiring in every effort, expending enorm-

ous amounts of physical and mental energy and yet failure comes. Every teacher of experience has witnessed such displays in some of his associates, and has felt keenly, from his sympathy, for them, the inevitable failure. So frequent is it that we have no doubt that it has given origin to the expression, so apt and so common, that the teacher is born and not made. There can be no doubt that these failures, as we have said, are traceable to the absence of a proper standard of excellence, or, if one has been adopted, to the failure to keep it constantly in view.

What is your ideal of discipline? It may be so high that it breaks from its own rigidity. It may be so low that the howlings of an drunken mob may be as peaceful as Paradise in comparison. It may be so indeterminate, so changeful, so rigorous one day, so loose the next, as to amount to nothing in the column of success. Fix upon some standard of conduct, sensible, natural, and easy in its demand, never forget it in the many changes of the school-day, and you have secured the first great element in success.

Fix upon a method and style of teaching in harmony with the accepted, approved methods of the day. Do not rant, do not talk, as if a treadmill were set up in the school-room, have full and ample consideration for the receptive powers of the beings before you, let them take an active part in the whole process, if possible, let them do the greater part of the talking, teach at and through the dullest pupil of the class, do all this and you will look with pardonable pride and pleasure at the result.

And in your recitations, as you call them, which are recognized in all good schools only as important agents in fixing and fastening the knowledge imparted, how will you conduct them? What is your standard? If you simply

ask questions after the manner of the olden time, with the intent of ascertaining the fact whether the pupil has studied the lesson or not, your lot will be a bitter one, full of complaint against the pupil for his neglect, full of bitter thoughts about yourself, that your efforts, so honestly meant, so industriously carried on, do not and will not succeed. On the other hand, if you make your recitations the emphasis of your teaching, success is assured.

We hold that the elements of successful teaching are a naturalness

in discipline, a teaching that involves the activity of the pupils' mind, by their participation in it, and a recitation that is conducted for the purpose of fixing and emphasizing the lessons already taught. These, combined with a fair amount of system in the details of the daily routine, cannot fail to give the success which is so earnestly craved by many who are daily working and worrying, and yet feel and dread the failure which seems inevitable. Natural discipline, firm but kind, and true teaching never fail.—*American Teacher*.

THE SCHOOLMASTER'S RULE OF MEDITATION.

BY J. A. REINHART, PH. D.

THE schoolmaster, in his rule of meditation, takes for his example not only the good habit of many of his own profession, but of those eminent in other vocations. Socrates, who was emphatically a teacher, often spent hours in deep counsel with himself. Alcibiades, according to Plato in the *Symposium*, tells how Socrates continued in meditation for a whole day, thinking about something which he could not sooner resolve. Milton, who was for a time a schoolmaster and wrote the *Tractate on Education*, was accustomed to have read to him, in the early morning of each day, some part of the Hebrew Scriptures, and then to spend an hour in silence. Matthew Arnold tells us that Lacordaire, the celebrated French preacher, and afterwards the devoted master of the private school at Soreze, praising solitude and meditation as one of the necessary conditions for the formation of character, suddenly disappeared from Paris at the height of his fame as an orator, and spent five years in obscurity, gathering the

moral strength which comes from retirement and self-communion.

The schoolmaster will therefore have his hours of meditation, and will therein discourse with himself upon themes general and professional. He will, in the first place, consider the propriety of the answer made by Daniel Webster when asked the most important thought that had ever engaged his attention. "The most important thought I ever had," said he, "was the thought of my personal responsibility to God." The highest form of the schoolmaster's meditation will of course be a "learned ignorance." It will be in the highest things, like the case of Simonides, who gave an answer to Hiero, king of Syracuse. This prince had asked him what God was. The poet desired a day to consider the question proposed to him. On the morrow he asked two days; and whenever he was called upon for his answer, he still doubled the time. The king, surprised at this behaviour, demanded his reason for it. "It is," replied

Simonides, "because the more I consider the question the more obscure it seems." *Quia quanto diutius considero, tanto mihi res videtur obscurior.* The Christian historian from whom we have the story truly says: "The answer was wise, if it proceeded from the high idea which he conceived of the Divine Majesty, which no understanding can comprehend, nor any tongue express."

From this altitude of meditation the schoolmaster will descend to all relations and all duties; and he will, in particular, have need to consider the influence indirect as well as direct; unconscious as well as intentional, which he daily exerts upon his pupils. The teaching power of example is great both in establishing the learner in the right and in confirming him in the wrong. When he considers the power of education in general,—its formative power on individuals and societies,—he will recall to mind particular cases of both men and nations,—men who have first found out their self-possessed powers of thought and action under the influence of kind teachers, and afterward wielded them mightily for their own and their country's benefit. Horace Greeley, taught at his mother's knee, Daniel Webster, instructed in the country schoolhouse, and Henry Wilson, introduced into the most useful career in the same way, are but few among many. The lives of these and of many others should be particular evidences of the power back of education. The schoolmaster must, with Kant, believe that "behind education lies hid the great secret of the perfection of human nature." And at the same time he must ponder the weakness and the strength of human nature, and the corresponding weakness and strength of educational influences. The often baleful principle of heredity, the force

of habit and social environment, the love of sin, the indulgence of a natural sloth of mind or disposition, all fight against education. To fight oppositions, to remove obstacles, we must comprehend them. The schoolmaster, therefore, meditates upon these evils and hindrances, how he may best counteract and obviate them. In his earnest and varied appeals to the attention of his students, he must remember the great principle of psychology, that the power of the will is limited to *selection*. We cannot be good simply by *willing* to be good. The avenue through which the principle of virtue enters the mind,—the one condition of improvement,—is the *volitional direction of the attention* to high things. For him who enters upon this road with the ardent desire for his own mental and moral improvement, deliberately choosing to attend to good thoughts rather than the "motions of sin," nature and grace provide a beneficent principle which psychologists call the principle of automatic mental action. By choosing repeatedly to fix our attention on certain objects we, by and by, find ourselves *automatically* prompted to think, feel and act in the line to which we have directed our attention. The schoolmaster earnestly ponders how he may apply these principles, how he may contrive to get his hearers to *attend* on learning, that learning may bless them; to *attend* on wisdom and goodness, that wisdom and goodness may become the habit, the automatic habit of the soul,—this is the burden of his thought. To make the conditions for goodness as favourable as possible, to make the whole environment conducive to the development of the Christian graces,—this is his task.—*Journal of Education.*

ATMOSPHERIC CURIOSITIES.

MUCH of the superstition of the dwellers in mountainous lands has been traditionally fostered by unexplained natural phenomena. To them the supernatural and the awe-inspiring have a strange and powerful fascination. The mountain hunters of past centuries have seen unaccountable and terrible forms in the mountain mists, and legends have carried the phenomena from the plainly natural to the weirdly superhuman.

Professor Tyndall on one occasion, while travelling in the Alps, observed the shadow of his body projected at night-time on a mist by a lamp behind him, and a luminous circle surrounding the shadow. An enthusiastic traveller, Mr. J. A. Fleming, has for years been endeavouring to realize this phenomenon without the aid of a lamp. At last, on the summit of one of the Welsh hills, he and a friend succeeded. A gentle breeze thinned away the mists in front of the sun, and a burst of sunshine illumined the hill-tops. Along the valley the wind drove masses of thin mist, and on this they saw, to their surprise, the shadow of the summit of the hill on which they stood and their own sharply marked shadows projecting on it in giant shape. Surrounding these figures they observed two complete circular rainbows, quite concentric, the centre being the shadow of their heads. During all this time the sun was shining brightly on their backs. And in the Coolin Hills, in Skye, two Dundee gentlemen observed their shadows thrown against the precipitous side of a deep corry two hundred feet distant.

Here are some other instances of the appearances of this phenomena, as vouched for by authentic and trustworthy authorities. In the Sierra de Nevada, in Spain, Mr. Marr, of the

Goedetic Survey, was one day confronted by a monster figure of a man standing in mid-air before him, upon the top of a clearly defined mountain-peak, with the mist of the valley for a resting place. Around it were two circles of rainbow light and colour; on its head was a glorious halo, and from its body shot rays of colour. He was indescribably startled, and he threw up his arms at the sight of the awe-striking apparition of gigantic stature. Immediately on this movement the awful spectre of darkness threw out its arms and approached him. When the sun's brightness was obscured the shadow melted away. Mr. Whympers, in his "Ascent of the Matterhorn," mentions an instance in which the rainbow colours assumed the shape of crosses instead of circles. This effect occurring, as it did, soon after a fatal accident in the Alps, filled the minds of the guides with superstitious horror. To Mr. G. R. Gilbert, of Washington, a distinguished physicist, the phenomenon was also presented, when he was on the plateau of Table Cliff, in Utah (two miles above sea-level). The air was moist, and scattering clouds hugged the valley. Standing before sunset on the edge of the cliff, he saw his own shadow distinctly outlined on the cloud, apparently about fifty feet from him. About the head was a bright halo, with a diameter several times greater than the head. Outside the halo there appeared two concentric circles with brilliant rainbow colours. M. Lecoq has also witnessed the phenomenon. In March last, at half-past seven o'clock in the morning, he was riding on horseback up the slope of the deep ravine at the bottom of the mountains of the Puy-de-Dome. The wall was almost perpendicular;

the valley which he was just crossing was filled with a very dense and cold mist which covered the trees with hoarfrost. All on a sudden he escaped from the mist and found himself again in the full blue sky. The ravine was filled with vapour, resembling the surface of a lake. He was approaching the footpath of the road, when the shadows of the horse and himself were projected on the surface of the mist. These shadows were surrounded by a luminous circle presenting all the colours of the rainbow; the violet being inside and the red outside. All the colours were very vivid. The shadows were separated from the corona by a circle of yellowish hue, and the whole effect was most wonderful.

But the phenomena observed at Adam's Peak, in Ceylon, eclipse all that have been seen of this nature in the whole world. Many travellers have given an account of the remarkable peculiarities, and the Honourable Ralph Abercromby, in his enthusiasm for meteorological research, went there with two scientific friends to witness the strange appearance. This mountain rises in an abrupt cone a thousand feet above the chain and seven thousand three hundred and fifty-two feet above sea-level. It lies near an elbow in the main range, while a gorge runs up from the north-east just to the west of it. When, then, the north-east monsoon blows morning mist up the valley, light wreaths of condensed vapour pass to the west of the peak and catch the shadows at sunrise. The party reached the summit on the night of the 21st of February, 1886, amid rain, mist and wind. Early next morning the fore-glow began to brighten the under-surface of the stratus cloud with

orange; patches of white mist filled the hollows; and sometimes masses of mist, coming from the valley, enveloped them with condensed vapour. At 6.30 a.m. the sun peeped through a chink in the clouds, and they saw the pointed shadow of the peak lying on the misty land. Soon a complete prismatic circle of about eight degrees diameter, with the red outside, formed round the summit of the peak as a centre. The meteorologist, knowing that with this bow there ought to be spectral figures, waved his arms about, and immediately found giant shadowy arms moving in the centre of the rainbow. Two dark rays shot upwards and outwards on either side of the centre, and appeared to be nearly in a prolongation of the lines of the slope of the peak below. Three times within a quarter of an hour this appearance was repeated as mist drove up in proper quantities, and fitful glimpses of the sun gave sufficient light to throw a shadow and form a circular rainbow. In every case the shadow and bow were seen in front of land and never against the sky. When the sun rose pretty high the characteristic peculiarity of the shadow was beautifully observed. As a thin wreath of condensed vapour came up the valley at a proper height a resplendent bow formed round the shadow, while both seemed to stand up majestically in front of the observers, and then the shadow fell down on to the land and the bow vanished as the mist passed on. About an hour later the sun again shone out, but much higher and stronger than before, and then they saw a brighter and sharper shadow of the peak, this time encircled by a double bow; and their own spectral arms were again visible.

NOTES FOR TEACHERS.

MONUMENT TO COLUMBUS.—It is proposed to raise a monument to the memory of the great Columbus at Palos, near Huelva, in Spain, the work to be completed at the time of the celebration of the Fourth Centenary in 1892. The monument is to be erected by Spain, but the Spanish-American Republics and the United States of America are invited to join in the celebration.

THE MANCHESTER SHIP CANAL.—This work of great engineering difficulty goes on quietly and rapidly and with much confidence in the result, on the part of all concerned. There is a corner of Cheshire, England, four "steam navvies" are at work and a whole army of labourers. The work naturally excites much interest. There are some deep cuttings to be made, and the crossing of the marshes is looked forward to with eagerness. Its completion will not only be a triumph of engineering skill, but a great boon to the city of Manchester.

JOHN J. WILLIS, superintendent of Lawes' and Gilbert's famous Experimental Farm at Rothamsted, England, writes to the *American Agriculturist*:—"Among the many invaluable experiments here, there are none more interesting, and certainly none more important, to the people of the world at large than those on the continuous growth of wheat for nearly a half century on the same land, commencing 1844 and continuing up to the present time, together with the investigations of the chemical components of wheat products in the mill, according to the conditions of growth or the circumstances of their preparation. The records, then, of a field of fourteen acres, on which

wheat has been grown without manure and by different kinds of manure year after year for forty-four successive seasons, without either bare-fallow or a fallow crop, and in which the lowest production per acre in the first year on any plot was 15 bushels of dressed grain, and in 1886, the last year, 9 bushels, and highest in the first year $24\frac{1}{4}$ bushels, and the last year $45\frac{1}{8}$ bushels, with an extreme range of from 5 to 56 bushels of wheat per acre, cannot fail to be of much interest at once to the practical farmer, the miller, and economist. It has been demonstrated by numerous experiments, both in the Old World and in the New, that not only may the relative proportions of the different parts of the wheat plant vary considerably in different specimens, but also that the composition of the berry itself is liable to great changes, according to the variety employed, the mode of culture, the season, the nature of the soil, and the manurial ingredients used. In fact, the more wheat, which is characteristically a starchy product, is perfectly matured, whether through the influence of variety, soil, season, or manure, the higher will be the proportion of flour obtained by milling, and as a rule the lower will be the proportion of nitrogenous substances, the lower that of the bran and the higher that of the starchy compounds."

THREE DANGERS.—Men and methods necessarily have "the defects of their qualities." Then, excellences, unless perfect balance is attained, tend to excess which is weakness, or else involve neglect of some other important matter. To recognize these defects of our qualities is to be guarded against them: and to point them

out is not fault-finding but helpful criticism. Now three serious defects seem to us allied in this dangerous way to the excellent modern methods of teaching. They are not everywhere present, nor are they necessary results of current views and practices, but they are natural results, and not uncommon. In the first place, the modern teacher seeks to adapt the work closely in matter and method to the nature of the pupil; but the defect of adaptation is manifestly weakness. We may adapt too closely. John Stuart Mill says, "The pupil of whom nothing is required which he cannot do never does all that he can." Strength is obtainable by exertion, by attempting difficulties. This false tone in our primary work has begun to be generally apparent. We are babying the children. We have over-elaborated their work in number, in language, and in reading, and adapted it so delicately that there is nothing tonic in it. As a matter of fact, it is always better to work a little above the pupil's capacity than a little below it—provided we do not press this to the point of producing discouragement. Adaptation is admirable—but its defect is weakness, and against weak work, amiable trifling, the modern teacher needs to guard. Another excellent purpose is to make work pleasant and attractive. We certainly would not have this abandoned, although we do think it necessary for pupils to learn to do what is not agreeable. Self-indulgence is evidently the defect which our amiable purpose is liable to beget. The old discipline did not tend to this. Here was the task—it was called by no alluring name; it was a duty, and duty need not be attractive; the fruits of neglect were, however, very bitter. The discipline produced earnest, self-denying, devoted men. In the effort to make work pleasant and to avoid harshness there is need to guard

against the growth of an easy-going, self-indulgent spirit. If we abandon the plan of overcoming this by a stern and hard discipline, there is certainly all the more call for an intelligent culture of a self-denying and dutiful application. Again, in the reaction against definitions, verbal memorizing, and hard and fast forms of statement, there is constant danger that we shall leave most things in the mind loose and vague, and thus substitute a mental laxness for the narrow firmness of the old mental training. An exact and retentive memory is not a curse: it is one of the best results of wise training. To secure this it is not necessary to return to mere rote learning; but some learning by heart is wise and necessary. Even things not understood, when thus learned, may, as Mr. Mill tells us was the case with him, "serve as a nucleus for observations and reflections to crystallize upon." But laxness is manifestly the defect of our developing methods, laxness of memory and, in general, a low mental tension. We work to develop the understanding, and are mortified to find that our pupils understand and forget. There are then these three defects of our qualities—weakness, a self-indulgent spirit and laxness, against which we need to guard carefully.

RUSSIAN PACIFIC RAILWAY.—The Russian Government has practically determined to connect St. Petersburg with the Pacific by rail. When completed this line will form the shortest, straightest and quickest highway from Europe to the eastern shores of Asia, and will complete the "iron band" with which man has girdled the earth. It is proposed that the Pacific Terminus shall be at Vladivostock in Siberia, near Peter the Great Bay.

The first section of the line is to be constructed in Central Siberia,

where the difficulties of communication are most severely felt, and from that point its extension will only be a matter of time. It appears that there are not supposed to be any great engineering difficulties on any part of the projected line, at least none but such as modern skill is fully competent to deal with. The most recent information about Siberia places it beyond doubt that the agricultural and mining resources of the country are capable of great development, and that the conditions of life are not nearly as hard as have been supposed; there is no lack of natural wealth, and it has only been the almost entire absence of facilities for transport which has rendered the name of Siberia a synonym for sterility and desolation. If this report be only half true there is a good prospect for the future railway.

However, if it takes a long time to make this road a success, in a commercial point of view, there is no doubt of its importance, politically. We may judge to some extent of its value in this respect to Russia from the importance to Britain and Canada of the Canadian Pacific Railway and the recent establishment of lines of steam ships on the Pacific Ocean in connection with it, and there seems to be no reason why on the completion of this Northern European and Asiatic route a line of fast steamships should not be established to Canadian and United States ports from Vladivostock, which would doubtless influence directly the trade of both China and Japan.

THE ROTATION OF THE EARTH.—

An important and anxious question of the modern astronomer is, whether the earth's rotation is uniform and if not, in what way and to what extent does it vary. The importance, of course, lies in the fact that this rota-

tion furnishes our fundamental measure and unit of time. Up to a comparatively recent date there has not been reason to suspect this unit of any variation sufficient to be detected by human observation. It has long been perceived, of course, that any changes in the earth's form or dimensions must alter the length of the day. The displacement of the surface or strata by earthquakes or by more gradual elevation and subsidence, the transportation of matter toward or from the equator by rivers or ocean currents, the accumulation or removal of ice in the polar regions or on mountain tops—any such causes must necessarily produce a real effect. So also must the friction of tides and trade winds.

But it has been supposed that these effects were so minute, and to such an extent mutually compensatory, as to be quite beyond the reach of observation; nor is it yet certain that they are not. All that can be said is that it is now beginning to be questionable whether they are or not. The reason for suspecting perceptible variation in the earth's revolution lies mainly in certain unexplained irregularities in the apparent motions of the moon. She alone, of all the heavenly bodies, changes her place in the sky so rapidly that the minute inaccuracies of a second or two in the time of observation would lead to sensible discrepancies in the observed position, an error of one second in the time corresponding to about half a second in her place—a quantity minute, certainly, but perfectly observable. No other heavenly body has an apparent movement anywhere nearly as rapid, excepting only the inner satellite of Mars; and this body is so minute that an accurate observation is impracticable, except with the largest telescopes and at the times when Mars is unusually near the earth.—*Prof. Young.*

IN THE CARPATHIANS.—Sunday is a very entertaining day at Sinaia. All the peasants come from round about with carpets, costumes and towels, fruits of their industry during the long winter. They station themselves in the gardens, opposite the most central hotel, and there expose their goods over the balconies and benches to tempt the visitors. On a saint's day peasants come from very long distances with their goods packed on mules, and hold quite a fair. Roumanian carpets are of a rougher texture than most oriental work, hardly bigger than large rugs, and of every shade. The costumes are often most beautifully worked in different colours and ornamented with gold and silver spangles. They find a great sale at Sinaia, as the national costume is popular among the Roumanian ladies. They think little of paying many hundred francs for one costume. The chief beauty of this dress is its extreme simplicity, but the effect is very picturesque, as it suits the dark eyes and colouring of the Roumanians. They say it dates back to the Roman days. Of course, ladies wear very elaborate editions beautifully worked; so do the richer peasants on gala occasions. The ordinary national dress of a Roumanian peasant woman consists of a coarse white linen skirt, embroidered on the breast, neck, shoulders, and wrists in blue, black, or red wool. A petticoat reaching to the ankles, also embroidered round the bottom, is of the same white linen, and over this an apron or *catrina*, of coarse, strong stuff, dark blue or black, generally bordered with a red or yellow stripe; the whole is confined round the waist by a broad band of different colors. In winter they wear an overcoat or sleeveless skin waistcoat, beautifully worked in different wools. During the warm weather they generally go barefoot. An unmarried girl either leaves her head uncovered or ties on

a handkerchief, while married women wear long veils. It is a very simple dress, which seems to suit their primitive sort of life, for the peasant woman weaves all the linen and cloth used by the family. In the Carpathians the women are, as a rule, fine and handsome, with a natural, free noble bearing and gait. They seem very strong, and do not mind hard work. I have seen them divide with the men the labour of making the roads and building houses. The men's dress consists of a coarse white linen shirt, like a short tunic, worn outside the pantaloons, and fastened round the waist with a strong, broad, leather belt. The rather full pantaloons are confined from the knee by the thongs of the sandals, or, as the Roumanians call them, *opinci*—soles made of goat-skin, cut the size of the foot, and bound on by crossed bands. The mountaineers wear picturesque large hats or sheepskin caps (*caciolas*). The addition in winter is the sleeveless embroidered waistcoat, or an enormous sheepskin jacket, doubtless very warm, but which has often seen too many generations to recommend it to fastidious tastes.—*Catholic World*.

THE *Spectator* has directed the attention of its readers to the subject of technical education in connection with the possible legislation during the present session of Parliament. In the course of its observations it declares that "the use of tools, though a good thing, is not the highest thing to be desired in the equipment of a citizen, and it is only in a very limited degree that it could be introduced with advantage into any rational scheme of general education. The difference between a handy man and an unhandy man is unquestionably of some importance in all conditions of life; but the difference between an intelligent well-read man and one whose mental faculties have not been

broadened and cultivated is of ten times more importance, both in the lower and the higher rank of life. We are not without some very significant experience on this point. In girls' schools (says the *Spectator*) we have long had a form of technical instruction of undoubted utility. Needlework is not only a beautiful art, but a necessary of our domestic life. It has received a large, perhaps an inordinate, share of attention in all the elementary schools of the country. From the point of view of those who desire to make the primary school effective as a preparation for the duties and responsibilities of an intelligent life, the amount of time and effort often spent appears to be out of all proportion to the value of the results produced. In fact, experience shows that needlework does little or nothing to improve the general capacity of the learner, and that proficiency in this one art may easily co-exist with dulness and mental vacuity, and with complete helplessness in regard to all the other duties and claims of life." Our contemporary concludes as follows:—"Subject only to the inevitable limitations of age and opportunities, the true educational reformer will recognize the claim of every English child to the best and most generous education he is able to receive. Whether we are legislating for Eton or for the humblest ragged-school, it behooves us to bear in mind that the first business of a school is to communicate the elements of truth, to awaken the faculties, to stimulate thought, and to place in the hands of the pupil the instruments of future acquisition. As a secondary and subordinate object, we may well aim also at imparting more of tactual and visual power, a fuller acquaintance with the material forces in the world, and greater skill in handling them. This part of training has been too much disregarded, and has a rightful claim to recognition; but to assign to it the first place in a scheme

of either primary or secondary education, would be to disregard all the best lessons of experience, and to bring about a mischievous reaction."
—*The Schoolmaster.*

ORAL AND TEXT-BOOK INSTRUCTION.—The difference between the oral and the so-called text-book method has been defined by Dr. William T. Harris in a paper on the "Teaching of Natural Science in the Public Schools," which is published in Barden's "School-Room Classics." In the oral method the teacher is the general source of information; in the other, the pupil is sent to the text-book. In neither is cramming with mere words considered good teaching; and yet, with a poor teacher, it may happen under either. The excellence of the oral method should be its freedom from stiffness and pedantry, and its drawing out of the pupil to self-activity in a natural manner. Its abuse happens when the subject is presented in a confused manner, or scientific precision is lost by using too familiar language or by too much pouring-in without exercising the pupil by making him do the reciting and explanation. The excellence of the text-book method consists in getting the pupil to work instead of working for him; in teaching him how to study for himself, and to overcome difficulties by himself, instead of solving them for him. Unless the teacher knows this and directs all his efforts to achieve this end, very great abuses creep in. Thus it may happen that the teacher requires the pupil merely to memorize the words of the book, and does not insist upon any clear understanding of it. Indolent teachers lean upon the text-book and neglect to perform their own part of the recitation. But in the hands of the good teacher the text-book is a powerful instrument to secure industry, precision, accuracy, and self-help on the part of the pupil.

SCRIPTURE LESSONS FOR SCHOOL AND HOME.

NO. 10. THE SERMON ON THE MOUNT (III.).

THE CHRISTIAN'S LAW — *continued.*

To read—St. Matthew v. 33—48.

I. THE LAW OF OATHS. (33—37.) Refers to third Commandment.

Sanction of God's own example. God to Abraham. (Gen. xxii. 16.)

Commanded in Law of Moses. (Ex. xxii. 11.)

Instance of Abraham. (Gen. xiv. 22.)

Oaths must be kept. (Eccles. v. 4.) Instance of Hannah vowing Samuel. (1 Sam. i. 28.) St. Paul at Cenchrea. (Acts xviii. 18.) Not to be made rashly, as Jephthah. (Judg. xi. 30.) Jews in habit of frequent oaths on all occasions. Christ condemns this. Jews thought no harm in oaths if God's name not mentioned. But what is oath? Solemn appeal to God's knowing all things. Such an oath as Christ made Himself before High Priest. (St. Matt. xxv. 63, 64.) Should be kept for solemn occasions, such as Court of Justice. In daily life let words be few and simple.

II. THE LAW OF REVENGE. (38—42.) Eye for an eye, etc. (See Ex. xxi. 24.) Law allowed exact retaliation in kind—so did all primitive nations—allowed not for revenge of individual, but for good of community generally—simplest method of punishment. Christ teaches new law—overcome evil with good. Five examples:—

1. Resist not evil. So David to Saul. (1 Sam. xxiv. 4.) 2. Submit to personal injury. Christ Himself. (St. Matt. xxvi. 27.) 3. Give pressed service willingly. Simon the Cyrenian. (St. Matt. xxvii. 32.) 4. Be willing to give alms. Early Chris-

tians. (Acts ii. 45.) 5. Lend when asked. Mark of a righteous man. (Ps. xxxvii. 26.)

Coat or tunic—under-garment with sleeves. *Cloke*—the upper or outer garment.

Principle is to be willing and ready to help others.

III. THE LAW OF LOVE. (43—48.) Old law said "Love neighbour." (Lev. xix. 18.) Rabbis added "Hate enemy." Christ teaches true spirit. Show love by—

1. Kind words in return for curses—e.g. David. (1 Sam. xvii. 45.) 2. Kind deeds for injuries. Joseph. (Gen. xlv. 8.) 3. Prayers for persecutors. St. Stephen. (Acts vii. 60.)

Result of so doing—become true children of God—copy His example who does good to all—giving rain, sunshine, food, earthly blessings even to those who love Him not.

Three kinds of return possible—

1. Evil for good—is work of the devil. Example—Jews to Christ. (St. Luke iv. 22.) 2. Evil for evil, or good for good—is natural to man. Example—Spies' treatment of Rahab. (Josh. vi. 23.) 3. Good for evil—is to be like God. Example—Moses and Israelites. (Ex. xxxii. 32.) This Christian charity to be shown even in outward politeness.

Treat all and greet all with civility.

Example—Boaz and reapers. (Ruth ii. 4.) Thus in all things, however small, strive after perfection and spirit of God.

NO. 11. THE SERMON ON THE MOUNT (IV.).

THE CHRISTIAN'S DEVOTIONAL LIFE.

To read—St. Matthew vi. 1—18.

I. ALMSGIVING, or Duty to Neighbour. (1—4.) (a) *General caution.*

Alms not to be done for the sake of being seen. Greek word also "righteousness." English word means "mercy."

What are alms? 1. *Feeding* the hungry. Christ and the multitudes. (St. Matt. xiv. 14.)

2. *Giving* drink to the thirsty. Rebekah. (Gen. xxiv. 17.)

3. *Clothing* the naked. Dorcas. (Acts ix. 39.)

4. *Teaching* the ignorant. Aquila and Priscilla. (Acts xviii. 26.)

5. *Visiting* the sick. St. Peter. (Acts ix. 36.)

6. *Burying* the dead. St. Stephen. (Acts vii. 2.) And any other act of mercy, pity, or love to others for Christ's sake. Hypocrites or actors sound trumpet, *i.e.*, blazon good deeds abroad. *Where?* In Synagogues—subscription lists, etc. *Why?* To get praise of men. *What* do they get? Their reward in full, *i.e.*, what they sought. *What* do they not get? Praise of God either here or hereafter.

(b) *Particular caution.* Give secretly, willingly, liberally. Jews required to give a tenth. (Gen. xiv. 20; Mal. iii. 8.) Christians taught to give as hearts are disposed—not

grudgingly, but cheerfully. (2 Cor. ix. 7.)

II. PRAYER, or Duty to God. (5—15.) *General directions*—(a) *Privacy.* Private prayer here referred to, not the temple worship. Are to seek retirement.

Examples:—Peter on housetop. (Acts x. 9.) Nathaniel under fig-tree. (St. John i. 50.) Christ on mountain-top. (St. Matt. xiv. 23.) St. Paul by the river-side. (Acts xvi. 13.)

(b) *Simplicity.* Not mere foolish repetition of same word, as priests of Baal on Mount Carmel. (1 Kings xviii. 26.) So Christ gives model prayer.

Notice—1. Three petitions for God's glory, four for man's needs.

2. "Our Father" implies universal brotherhood. 3. Simple words as from a child to a parent. 4. Unless forgive others, cannot be forgiven. 5. Christ used part of this prayer Himself in Garden of Gethsemane.

Debts, i.e., sins, for often omitting to pay God what is due to Him. (Mal. iii. 8.)

Temptation, i.e., testing above what we can bear.

Evil. The evil one and all evil things.

EDITORIAL NOTES.

MUCH interest has been awakened among the members of the teaching profession by the touching accounts which have reached us of the danger and suffering to which many teachers and pupils were exposed during the recent severe storms which have prevailed in some parts of the Western States. Truly those teachers were heroes. There were instances of the loss of health, of the use of their limbs and even of life in efforts to save and shelter the children. A grateful community for

whom they suffered so much will doubtless remember them with affectionate and practical interest.

Their fellow-teachers are proud of them; they have proved themselves worthy members of an honourable profession from whom the country expects noble deeds.

THE attention of those persons who, for various reasons, think that the State should have nothing to do with religious instruction in the schools, and who are busily engaged in striv-

ing to find arguments for keeping religious instruction in our schools in *statu quo*, is directed to the following extract from an official circular which Signor Cataceno, the Inspector of Schools in Italy, has issued to the teachers:—

“You will have to develop and strengthen in the soul of the children, faith in God, the supreme and infinitely merciful Being. You will prove to the child by your own life, that man's object and aim is to become like God. Thus only may the solution of many educational and social problems be found out. A system of education which excludes religion cannot be perfect. Without doubt children should be taught the love of country; but it is still more noble to instil into their minds love to the God of mercy, and charity towards all men; this is the source of all virtues. I invite you, with a view to this end, to make your children read the Gospels.”

THE Scripture Readings, which were issued by the Government of Ontario a couple of years ago, have been revised by the same committee, (with the exception of two members

—Rev. Principal Caven and Dr. Dewart in place of Dr. Laing, and Rev. Mr. Powis,) which had revised the first edition. The new edition is published by the Wesleyan Book Room apparently with the sanction of the Education Department.

We see in a letter addressed to the *Dominion Churchman*, by the Rev. Provost Body, Trinity College, a member of the Revising Committee, the statement that it is the intention of the Government to print a list of readings for the use of teachers in the Public Schools. This determination on the part of Education Department is important. Each scholar can then have his own Bible, and the teacher will have the valuable assistance of this committee of clergymen in selecting Scripture Readings. If the Minister of Education had taken the advice of the teachers this result would have been reached two or three years ago, and the country have been spared all the worry and expense of the past three years regarding the reading of the Bible in the schools. Forward is the word for Bible reading in the schools, let the whole school population be indoctrinated in its principles of justice, truth and toleration.

SCHOOL WORK.

MATHEMATICS.

ARCHIBALD MACMURCHY, M.A., TORONTO.
EDITOR.

LONDON UNIVERSITY.

MATRICULATION EXAMINATION, 1888.

ARITHMETIC AND ALGEBRA.

Examiners—Prof. A. G. Greenhill, M.A.;
Prof. M. J. M. Hill, M.A.

1. Express as vulgar fractions in their lowest terms—

$$(a) \frac{1}{8} - \frac{1}{9} + \frac{1}{10} - \frac{1}{11} + \frac{1}{12} - \frac{1}{13};$$

$$(b) \frac{1}{2} - \frac{1}{3} + \frac{1}{4} - \frac{1}{5} + \frac{1}{6} - \frac{1}{7};$$

2. Express in the form of a repeating

decimal the sum and the difference of $6394\frac{3}{8}$ and 175 .

3. Extract the square root of 289 to five places of decimals.

4. A bill drawn on 1st January, 1887, for six months for £772 14s. 1d., was discounted on 5th May at $2\frac{1}{2}$ per cent. Calculate the true discount, allowing three days of grace.

5. Three men, A, B, C, go into business, A contributing £5,000, B £3,000, and C £2,500 of the capital, on the understanding that, after allowing $12\frac{1}{2}$ per cent. of the profits to C as manager, the remainder should

be divided amongst them all in proportion to the amount of capital contributed by each. At the end of a year C receives £280. What are the total profits of the business, and how much do A and B receive respectively?

6. Simplify—

$$\frac{1}{6x^2 - 7x + 2} - \frac{2}{8x^2 - 10x + 3} + \frac{1}{12x^2 - 17x + 6}.$$

7. Solve the simultaneous equations—

$$\begin{aligned} 5x + 20y - 28z &= -1, \\ 11x - 4y - 12z &= 0, \\ 3x + 24y + 4z &= 3. \end{aligned}$$

8. There are seven numbers in Arithmetical Progression whose sum is 63, and the ratio of the second to the last is that of 1 to 3. Determine the numbers.

9. Are the quantities $\frac{2}{3}$, $-\frac{1}{2}$, $-\frac{4}{5}$ consecutive terms of a geometrical progression? If not, what quantity should replace the last, in order to give, with the first and second, three consecutive terms of a geometrical progression; and what is the sum of an infinite number of terms of this geometrical progression?

10. The distance from A to B by rail is 110 miles. At 12 o'clock a train leaves A for B, the speed of which is at the rate of 40 miles an hour; this train stops for two minutes at the end of every twentieth mile of its journey. Also at 12 o'clock a train leaves B for A, the speed of which is at the rate of 30 miles an hour; this train stops at 1 o'clock, and remains at rest for three minutes before resuming its journey. Find when and where the trains pass each other.

ENGLISH LANGUAGE:

Examiners—Prof. Edward Arber, F.S.A.; Henry Craik, Esq., C.B., M.A., LL.D.

[Not more than *ten* questions are to be attempted, of which Nos. 1, 13, and 14 must be *three*.]

1. Write down and punctuate the passage read by the examiner.

2. Express, in a tabular form, the relationship of English to other Teutonic languages.

3. At what times, and through what channels, have classical and romance words come into the English language.

4. Define the words *Grammar, Etymology, Syntax, Gender, Number, Case, Mood, and Tense*.

5. Classify the letters of the English alphabet according to the parts of the vocal organs pronouncing them.

6. What English nouns make no change in the plural number, and why?

7. Which English adjectives cannot be compared? Write down those adjectives which are defective in their comparison.

8. Discuss the etymology of *Bridegroom, Children, Could, Eleven, Goose, Hers, Mice, Once, Songstress, Vixen*.

9. State the arguments in favour of regarding the English article as a distinct part of speech, and also any arguments on the other side.

10. Describe fully, with examples, English verbs of Incomplete Predication.

11. State the correct modern usage of *shall* and *will*; and show, by reference to the etymology of these words, how that usage is to be accounted for.

12. Define *Infinitive, Gerund, Present Participle, and Past Participle*; giving examples of each.

13. Analyze:—
Of man's first disobedience, and the fruit
Of that forbidden tree whose mortal taste
Brought death into the world, and all our
^{woe,}
With loss of Eden, till one greater Man
Restore us, and regain the blissful seat,
Sing Heavenly Muse.

14. Correct or justify:—

(a) They drowned the black and white kittens.

(b) Thinking of them, my pet carries as I write.

(c) The then Ministry.

(d) It is me.

(e) I intended to have written to him.

15. State the principal rules to be observed in punctuation.

ENGLISH HISTORY AND MODERN GEOGRAPHY.

Examiners—Prof. Edward Arber, F.S.A.; Henry Craik, Esq., C.B., LL.D., M.A.

[Not more than *ten* questions are to be attempted, of which at least *two*, and not more than *four*, must be questions in geography.]

HISTORY.

1. Describe the composition and functions of the Witan, in their origin and development.

2. Describe the circumstances which led to the invasion of England by William the Conqueror, and the nature of the support upon which he relied in his enterprise.

3. Give an account of the leading features of feudal institutions, and show how far these prevailed in England before the Norman Conquest.

4. Contrast with one another the rebellions under Henry III., Edward II., and Richard II., as regards their origin and objects.

5. Give some account of the intervention of the Church in constitutional questions under Henry I., Henry II., and John.

6. Discuss the economical and social effects of the Wars of the Roses.

7. Edward IV. is said to have established a "new monarchy." How far, and in what respects is this true?

8. Give some account of the following, showing how they are typical of leading parties in their time:—Archbishop Warham, Sir Thomas More, Archbishop Cranmer, Cardinal Pole, Archbishop Whitgift.

9. Show the part taken in the struggle against Charles I. by Pym, Hollis, Oliver St. John, Hampden, and Fairfax.

10. Name, and show the effect of, the statutes passed under the ministry and influence of the Earl of Clarendon, after the Restoration.

11. Give the particulars of the trial of (1) Algernon Sidney, or (2) William, Lord Russell.

12. Describe the beginning and earliest direction of colonial enterprise in England.

GEOGRAPHY.

13. Name the places where attacks have been made on England at various periods in our history, and show the result of each of these attacks.

14. Describe the course of the Thames, the Clyde, or the Shannon, naming the towns situated on each.

MODERN LANGUAGES.

Editors { H. I. STRANG, B.A., Goderich.
W. H. FRASER, B.A., Toronto.

EXERCISES IN ENGLISH.

1. Substitute words for the italicized phrases:

(a) The meetings are held *every year*.

(b) Orders will be issued *at once*.

(c) This duty will *of necessity* devolve on you.

(d) That does not require much knowledge *of the law*.

(e) I hope that their visit will be *of benefit* to them.

(f) The contest for the *office of mayor* was very keen.

2. Expand into complex or compound sentences:

(a) You had better apply to the owner of the house.

(b) By attending to this at once you will greatly oblige us.

(c) The opponents of the scheme were taken by surprise.

(d) They all think me foolish to trust him.

(e) Greatly to our surprise not one of them was missing.

(f) In consequence of our missing the train we had to remain there all night.

(g) All our attempts to remove it proved ineffectual.

(h) Fearing to be surrounded during the night they decided to retreat.

3. Express the thought in different words:

(a) He proposed the immediate cessation of hostilities.

(b) The governor acted unconstitutionally in making unauthorized disbursements from the treasury.

(c) Canada sought new outlets for her surplus products.

(d) For a while the advantage in the struggle was on the side of the French, though the preponderance of population was vastly on the side of the English colonies.

4. Change the voice of the finite verbs in the following:

(a) He did much to promote the prosperity of the province.

(b) The cost of it has never been accurately calculated.

(c) We were misled by the description that the paper gave.

(d) The Government has decided to adopt severe measures against all who are found engaged in the traffic.

5. Substitute other words or phrases for those italicized :

(a) The *various* tribes were *successively* *subjugated* by the *imperial* armies.

(b) The queen was *reluctantly* *compelled* to order *his* *execution*.

(c) If that *does not suffice* to induce him to *surrender it*, I shall have *recourse to sterner* measures.

(d) The *statutes* against *heretics* were *revived*, and hundreds *died at the stake* for the Protestant *faith*.

6. Arrange in the natural prose order :

(a) O' returned his infant's bed he found,
With blood-stained cover rent ;
And all around the walls and ground
With recent blood besprent.

(b) Up from the South, at break of day,
Bringing to Winchester fresh dismay,
The affrighted air with a shudder bore
The terrible grumb'e and rumble and roar.

7. Break up each of the following into a series of short, simple sentences :

(a) The inspector, whose duty it was to examine prisoners, soon discovered that the traveller was not a Frenchman, and that, as he did not understand a syllable of the German language, he was totally incapable of being a spy.

(b) The officers of State, smiling at what they thought ridiculous advice, looked at the king, who they expected would be enraged at the insult, and would order the dervise to be punished.

8. Change the following—

(a) From direct to indirect narrative :

"I have no doubt that you think so, Susan," said Mr. Elliott, "but if you had lived as long as I have done without seeing your own country, you would love this little tree, diminutive as it is."

(b) From indirect to direct :

Regulus replied that he was not ignorant that torture and perhaps death were in store for him if he returned unsuccessful, but what were these to the shame of an infamous action. He had sworn to return ; it was his duty to go, and he left the rest to the gods.

9. Combine each of the following groups :
(a) Into a simple sentence :—

1. He obtained the services of three guides. The guides were experienced men. He began his march to the foot. He took with him all his available force.

2. Columbus set sail next morning. The day was Friday. It was the 3rd of August. It was in the year 1492. A vast crowd of spectators was present.

(b) Into a compound sentence :

1. They saw their leader fall. They thought him slain. They at once gave up the contest. This was in accordance with the practice of their ancestors.

2. The struggle was now at an end. The inhabitants were terror-stricken. They burst through the walls. They fled in every direction.

(c) Into a complex sentence :

1. A bold expedient occurred to him. A good many people would have hesitated to attempt it. He carried it through successfully.

2. He seized the king. He imprisoned him in the palace. He worked on his mind. At last he induced him to acknowledge himself the subject of Spain.

3. He ordered him to be seized. He ordered him to be disarmed. He then conducted him to Gessler. Gessler put some questions to him. He answered these very haughtily. Gessler was in consequence both surprised and angry.

In answer to an advertisement in the Toronto dailies for a teacher in the County of Leeds at a salary of \$240, applications were received among others from experienced male teachers holding Second A Certificates. In fact some of those applying were so highly recommended that the trustees rejected them, believing that they would not remain for more than a very short time.

CLASSICS.

G. H. ROBINSON, M.A., TORONTO, EDITOR.

BRADLEY'S ARNOLD.

BY M. A.

Exercise 25 A.

1. Virtuti tuæ invidetur. 2. Mendacibus nunquam creditur. 3. Vos vero, nonne liberi esse vultis? nolite servi fieri; servis nihilo plusquam liberis parcetur. 4. Interroganti ei nihil respondere visus es. 5. Tantum abest ut nobis odio sis, ut tibi etiam favetur. 6. Ego recte mihi fecisse videor; tu vero potest fieri ut aliter sentias. 7. Utri a rege favetur quaeram. 8. Acriter hodie pugnatum est; cras diutius atque atrocius certabitur.

Exercise 25 B.

Tum subito a tergo conclamatum est; et nescio quo pacto toto est trepidatum agmine. 2. Aiēnti mihi credidisti; illud intelligere non possum, cur neganti fidem habere nolis.

3. Puelo mihi ægre persuasum est, ne nauti factus maris, ventorum, tempestatum vim experirer; senex domi sedere otiosum malo quam aut navigare aut peregrinari; tu haud scio an idem sentias. 4. Hac tanta felicitate contentus esse debuisti, nec id egisse ut nimia postulando omnia periclitere. 5. Tantum abest ut in nobis sit sævitum ut defectione et rebellionī majorum nostrorum semel atque iterum sit ab Anglis ignotum. 6. Vir fortis videtur fuisse frater tuus, sed satis constat in hac eum re temerarium se atque improvidum præbuisse. 7. Primus ex eo populo videtur civis noster fieri voluisse; ultimus pristinæ libertatis memoriam senex conservasse dicitur.

Exercise 56.

Tum ad Cortesium conversus vehementissime in Hispanos invectus est, qui in fines suos sine ulla justa causa bellum inferrent et cives suos in defectionem aut invitarent aut cogèrent. 2. Ne cuiquam parceret edixit, qui vel necandis captivis vel legatis violandis interfuisset. 3. Tum regulus, vir fortis et intrepidus, circumstantibus undique armatis, ad victorem conversus suorum timiditatem increpuit, qui se Hispanis dedendo liberta-

tem ac dignitatem res pretiosissimas projecissent. 4. Non prius se urbe excessurum pollicitus est, quam omnes qui ex hesternæ cæde superessent incolumes intra muros duxissent. 5. Quæsivit ex eis qui multi circumstabant num, qui regem suum salvum velent se sequi et omni adhibita celeritate excelsi qui fidem ac jusjurandum violassent poenas velent sumere. 6. Quum ad summam montem pervenisset, convocatis ad se legatis fluvios ostendit qui Italiam versus defluerent. 7. Ne avit se commissurum ut iis fidem haberet qui non solum ignavosæ atque infidos præstitissent verum omnia etiam tum, in tali republicæ tempore, commodis suis atque utilitatibus posthabitura essent.

SCIENCE.

SCIENCE TEACHING.

BY BAIE CHALEUR.

Before entering upon a discussion of methods of teaching science it is of the highest importance to consider the objects to be kept in mind in studying science. The method we adopt will depend largely upon the object we have in mind. If our object be merely to give our pupils information; if it be merely to acquaint our boys and girls with what scientists have learned of physics, botany, zoology and chemistry, then we shall adopt that method which will enable us to accomplish our object most surely, expeditiously and successfully. But if our object be a different one; if it be to make our pupils think, to train the intellect, we shall adopt an entirely different method. Again, if our subject be to prepare pupils for passing an examination our method will change with the change of object. Once more, our aim may be to give such a knowledge of the sciences to our boys and girls as may be of actual use to them throughout life. If this latter be the teacher's aim, then his method must be suited to the aim, and such as will secure its fulfilment. To summarize, a teacher may have in view in all his science teaching one or more of the following objects:—

1. To prepare for examinations.

2. To give a practical knowledge of the sciences with a view to their utility in after life.

3. To impart a theoretical knowledge of the sciences, that is, to give information.

4. To train the pupil mentally and morally, that is, to develop a well-rounded character.

Only one of these objects is worthy of the true teacher, and in attaining it, he secures all that is of worth in the others. A charlatan, a coward or a witting will aim at the first, a money-grabber at the second, and a mere dreamer at the third. The aim of the true teacher, in all subjects, is to develop a strong, symmetrical, moral and religious character. No doubt many teachers make the aim of their science teaching, and indeed the aim of all their teaching, the successful passing of an examination. They feel compelled to do this by the brutal force of a false public opinion. The public opinion which they feel constrained to pander to was created ten years ago by the official reports of High School Inspectors and the dissemination of these reports by the public press. Newspapers and inspectors alike helped to create the impression that the intermediate examination and its legitimate offspring, the teachers' second and third class examinations were thoroughly efficient, just and exact means of estimating a teacher's scholastic attainments and his ability to teach. This superstition still maintains a firm hold upon the public mind. It lingers along the corridors of our Universities and legislative halls, and is echoed from ten thousand school-houses throughout America. As recently as last summer, a university examiner—a beardless boy with a beggarly B.A. to his name—gave expression to this superstition in an open letter to the *Week*. What wonder then, that many a teacher, against his better judgment, makes the main object of his teaching the passing of an examination. His reputation, his position and his prospects all depend upon the result.

Mr. Herbert Spencer is the writer who, ahead of all others, has advocated the importance of science teaching on the ground

of its practical usefulness; but school life is too short in which to accomplish even a tithe of what Mr. Spencer aims at. Besides, as Mr. Quick in an essay on "Educational Reformers" points out, what we should teach, even according to Mr. Spencer's reasoning, is the *results* of science—not science itself. The practical results of science, the telegraph, the telephone, the electric light, the myriad applications of physics and chemistry to manufactures, can all be taught, but this should not be called science teaching. These results are seized upon quickly enough by the money-grabber, why teach them in our schools? Are we to try to develop a nation whose aim shall be *wealth-getting*? Certainly *wealth-getting* is important, it is the foundation of all art and refinement, but it is a miserable object to set before our boys and girls. The passing of an examination and the study of science, because it has a pecuniary value, because it will help us to get on in the world, are poor, sordid objects to set before our students. Let us aim at the highest—at mental culture, at character-building, at soul-wealth. This culture, of course, does not admit of measurement in coarse, vulgar percentages; it is too subtle and intangible for that. Nor can it be accurately gauged by the rude markings of an examiner, no matter how able, careful and conscientious (and our examiners are improving slowly), but this mental culture is nevertheless the proper aim of the teacher. The best and wisest men and women of Europe and America demand this, and when testing the scientific and literary training of a boy ask, "Does his education render him more industrious, more skilful and efficient, more ingenious, more persistent, more practically masterful in whatever he undertakes? If he has been trained to use his senses, to acquaint himself with natural phenomena *at first hand*; if he has been taught to think, to make careful comparisons, noting essential differences and significant similarities, making patient inductions and wise generalizations; if he has been led to form fixed habits of thoughtful-ness, self-reliance, moral earnestness, inflexi-

bility of purpose, persistent industry, promptness, punctuality, fidelity, unswerving devotion to duty; if, in short, his training has produced a well-rounded character, he will be able to meet all the reasonable demands that society can make upon one who lacks practical experience in actual business. He will readily acquire skill and efficiency in any calling for which his special talents have fitted him. Training gives potency to all the soul's possibilities."

How much of all this can be tested by an examination? Very little indeed, and that little of least worth. But the true teacher can set this formation of character before his pupils, and he can aim at it in all his teaching; and science teaching is that which, next to literature, lends itself in a peculiarly happy way to the development of the mind, and this is at once the measure of its usefulness and its best justification as a department of study in all our schools.

CLASS-ROOM.

ENTRANCE EXAMINATION LITERATURE.

LADY CLARE, P. 128.

This ballad owes its quaintness to the almost archaic words and expressions that occur chiefly in the parts in direct narration. Tennyson wrote it in imitation of the love-songs that were sung at fairs and social gatherings by begging minstrels, who played their accompaniment on a harp or violin.

Blow—bloom, *traw*, trust, believe, think.
betrotted—engaged to be married.

stead—place which another has or might have.

due—what ought to be paid or done to another.

dale—a vale or valley.

down—a hill.

worth—excellence, importance.

riddle—a puzzling question.

(The numbers refer to the stanzas.)

1. In what month are the "clouds highest up in air?"

2. "They two," in some editions "They too;" "the morrow," to-morrow.

3. "For my birth," on account of my ancestry.

"For my lands . . . fair," for my estates.

4. What is the subject of *said*? What is the force of *with*?

6 and 7. What is the purpose of the poet in using *ye for you*? Give equivalents for "As God's above," and "As I live by bread?"

9. "Nay, now my child," explain. What word is understood after "Lord Ronald's?"

10. "I dare not lie." Why not?

11. "I will know if there be any faith in man." Explain fully the force of *know*, *faith* and *man*. Is there an assumption that *man* is less faithful than *woman*?

12. What does Alice ask by the question, "Nay, now, what faith?" Give the meaning of *cleave*, and state which applies here.

13. "I sinned for thee." How?

17. What is the antecedent of *that*?

ENGLISH LITERATURE.

Third Class.

HIGH SCHOOL READER.

1. Page 437, 1st stanza. Parse "now." What kind of clause is "that horizons are luminous?"

"fly now that horizons are luminous." Now is an adverb modifying fly; "that horizons are luminous" is an adverbial clause.

Stanza 2nd. Parse "flashing." Swallows flew flashing, a predicate adjective.

Stanza 3rd. Parse "to hear," "long to hear," an infinitive completing the verb long.

Stanza 4th. What is a word-picture. By metaphor this expression is used for that exquisite power of description that rivals the painter's brush in vividly presenting the scene to the reader.

Explain "flashingly shadowing," The flight of the swallows casts a shadow but their wings flash white as they turn and circle.

2. Page 148. Explain "At every turn-pike," "passport;" turnpike = tollgate.

Burke uses this figure to express that at every crisis in his life he was obliged to prove his fitness (passport) to occupy certain positions. A passport is a certificate which travellers in foreign countries have to produce when required to do so by proper officials.

"Excessive," "out of all bounds." An excessive grant is too large or exceeds the proper amount. "out of all bounds," out of all due proportion.

Page 149. What is the subject of the first paragraph? The Duke of Bedford, the way in which he arrives at his conclusions about Burke and his own dependency on Royal Bounty.

Explain, "outrage economy and stagger credibility." The Duke of Bedford's grant was so large as to shock people's ideas of economy. They could hardly believe that it was so great.

Page 150. "Not gross adulation but uncivil irony." Explain and expand the force of this antithesis. This is not a good example of antithesis. If there be any it is between adulation (flattery) and irony (a sneer).

What does Burke imply by saying it would be not adulation but irony?

That no one could for a moment entertain the preposterous idea that the Duke of Bedford's personal merit gave him a right to the grants.

3. Page 83. What is the subject of the first paragraph: The degeneracy of the times in patriotism and public spirit.

THE Public School Board of Brockville has made a move that other town and city Boards would do well to follow. All classes are ordered to be dismissed on Friday at three p.m., and the last hour of that day is to be spent by the teachers, under the direction of the principal, in discussing methods of teaching and discipline. The object of this is to secure the best methods, and ensure as far as possible, uniformity throughout the schools. The teachers, sixteen in number, have been meeting in this way since the New Year, and all, including Mr. Grant, the principal, are well satisfied with the results.

CONTEMPORARY LITERATURE.

Dorcas for February is full of useful designs and appropriate articles.

Art and Decoration, besides many beautiful designs and illustrations, etc., contains well-written articles and useful hints to architects, builders and householders.

A RECENT number of *The Critic* contains a discussion on the subject of Sunday newspapers, arguments for both sides being given. *The Critic* has reached its eighth volume, and is as able and indispensable as ever.

The Quiver is so well known to many of our readers that an enumeration of its contents for March is almost unnecessary. The Rev. Hugh Macmillan, Edward Garrett, and many another good writer is represented in its pages. It will be a favourite companion for March Sunday afternoons.

The Annals of Hygiene is steadily improving in interest and value, and we recommend it to the attention of the teaching profession. It is the official organ of the Pennsylvania State Board of Health, but is by no means local in the character of its contents.

THE March *Lippincott* will contain, as usual, a complete novel—"Honoured in the Breach," by Julia Magruder. Max O'Rell's humorous article, "From My Letter-Box," and an article giving much curious information about the secret history of President Tyler's administration, will also appear.

JUDGE GRAY, of British Columbia, contributes to the current issue of the *Overland* a weighty article on Commercial Union between the United States and Canada. It is one of the most important contributions to

the discussion of this question, and we hope it will be widely read. Judge Gray is opposed to Commercial Union.

THE February *Scribner* is strong in illustrated articles, e.g., the "Man at Arms" (second part), by E. H. and E. W. Blashfield. An article by Prof. James on "What the Will Effects," has already been widely copied, and its practical scope and directness will cause it to be remembered much longer than the average magazine article. Prof. Shaler's Essay on "Volcanoe," and contributions by Robert Louis Stevenson, Maybury Fleming and others, also appear in this number.

FRENCH AND GERMAN READING BOOKS. Florian's Fables. Edited by the Rev. Chas. Weld. *Ibid.*

RIVERSIDE LITERATURE SERIES. No. 32. The Gettysburg Speech, and other papers. By Abraham Lincoln.

HOW TO SECURE AND RETAIN ATTENTION. By J. L. Hughes. Revised edition. New York: E. L. Kellogg & Co.

THE TRAVELLER AND THE DESERTED VILLAGE. Edited, with Introduction and Notes, by Prof. Barrett, of Elphinstone College, Bombay. London: Macmillan & Co., 1888.

MACMILLAN'S PROGRESSIVE FRENCH COURSE.
(1) First Year.
(2) The Teacher's Companion to Progressive French Course. First year. *Ibid.*

A COURSE OF BIBLE INSTRUCTION. London: Bemrose & Sons.

Intended for the use of teachers and parents, this "Course" will be found useful in selecting and preparing Bible lessons.

MONOGRAPHS ON EDUCATION. (1) English in the Schools. (2) English in the Preparatory Schools. Boston: D. C. Heath & Co.

These two essays are upon timely topics, and will be found interesting.

A SKELETON OUTLINE OF THE HISTORY OF ENGLAND. By A. H. D. Acland, M. P., and Prof. Ransome. London: Rivingtons. 9d.

A well-arranged presentation of the foundation-facts of English history.

RIVINGTON'S GREEK TEXTS. Xenophon. "The Anabasis." (1) Book I. (2) Book II. 1s.

Students will find here, in a neat and attractive form, with a vocabulary, and other aids, a good edition of the first two books of the Anabasis.

1. SCHILLER'S MARIA STUART. Edited by J. L. Bevir, M.A. London: Rivingtons.

2. HISTOIRE DE CHARLES XII., par Voltaire. Edited by R. H. M. Elwes. 2s. 6d. *Ibid.*

The above mentioned editions have just been issued, and are in every way convenient and suitable.

DIGEST OF FAWCETT'S MANUAL OF POLITICAL ECONOMY. By Cyril A. Waters, B.A. London and New York: Macmillan & Co.

The Digest is an explanatory guide, intended for the use of students preparing for examination on Prof. Fawcett's book, and can hardly fail to be of service to them.

CLARENDON PRESS SERIES.

GERMAN CLASSICS, Vol. IX., Becker's Friedrich der Grosse. Edited by Prof. Buchheim of King's College, London-Oxford: The Clarendon Press.

Besides English notes, etc., the editor has added a historical sketch which will be found useful. We need scarcely add that this is an excellent edition.

ELEMENTARY CLASSICS. Macmillan & Co.

1. Stories from "Ovid's Metamorphoses."
2. "Cæsar's Gallic War" VII.
3. "Cæsar's Helvetic War."

We have already expressed our favourable opinion of this useful and complete series of

text-books. They are specially edited for the use of schools, with notes, vocabulary, maps, etc., and in some cases with exercises.

A SECOND SCHOOL POETRY BOOK. Compiled by M. A. Woods, Head Mistress of the Clifton High School for Girls. London: Macmillan & Co.

It is a rare thing to find so good a collection of poems for children, and while the selections are not hackneyed, there is an instructive tone in the book, the general effect of which is bright and pleasing.

INTRODUCTION TO PHYSICAL SCIENCE. By A. P. Gage, Ph.D. \$1.00. Boston: Ginn & Co.

The present work is intended as an introduction to the "Elements of Physics," and it has been the aim of the author to make it suitable and available for ordinary High School work. Questions, etc., upon the text occur at the end of various chapters, and numerous illustrations are given. We have pleasure in expressing a favourable opinion of the book.

SCHOOL READINGS IN THE GREEK TESTAMENT Arranged and edited, with notes and vocabulary, by Arthur Calvert, M.A., late Fellow St. John's College, Cambridge. London: Macmillan & Co.

The "Readings" contain the outline of the life of Our Lord as given by St. Mark, with additions from the text of the other Evangelists. They form some thirty-six lessons, arranged in three books, each book being intended to be read in a school year. We venture to say that wherever this book is known it will be thought a treasure. The Introduction on "The Physical Geography of Palestine," "Galilee," and "The Revised Text," will well repay careful reading.

PROF. PANTON, of the Guelph Agricultural College has explored some remarkable Pot Holes in the vicinity of Rockwood, Ont., and at a recent meeting of the Canadian Institute gave a most interesting account of these curious holes, which he considers quite equal to those in the famous Glacier Garden at Lucerne, in Switzerland. **THE MONTHLY** congratulates Prof. Pantan on the gratifying results of his efforts, and hopes to be able to chronicle many similar instances of independent work among our Canadian scientists.

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