The Dalhousie Gazette.

"ORA ET LABORA."

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THE opponents of football are becoming every day louder and more outspoken in their denunciation of the game. The main counts in their indictment are—1st. The danger to life and limb which is incurred in the play. 2nd. Its brutalizing effect upon the players. In substantiating the first charge, these Anti-Footballists have recourse to statistics. They call your attention to the serious aspect of the amusement in England, where within a year some fifty or sixty youths were instantly killed or sustained mortal injuries while participating in the 'sport.' They also cite instances of fatal results attending the game as played in the United States. These appalling figures might silence you and almost obtrude the conviction upon you that football is rather too costly a luxury. An examination, however, of the individual items of the football mortality-bill of England would convince you that the statistics are misleading. Let us look at a few sample items. A number of school boys, who have not yet reached their 'teens,' are playing something that has a ghostly resemblance to Rugby in a back yard enclosed

by a high stone wall. One of the children is jammed against the wall and dies from the injuries received. Another sample item: A young man, who is known to have heart disease, is dashing across the campus with the ball. The vigorous exertion is too much for his weak heart and he drops dead on the field. Had he been running to a fire, the same thing would have occurred. Nine-tenths of the items are of this meaningless kind. They furnish little or no data for an indictment of football when played on suitable grounds by persons who have attained their full growth and whom the doctors will warrant free from constitutional infirmity.

The second charge is that the game engenders savageness of disposition. This is one of those half-truths which Tennyson inveighs against in the oft-quoted line:

"A lie which is half the truth is ever the blackest of lies."

That brutality does characterize some football matches, where large interests, imaginary or real, are at stake, is quite true. But nothing can be more false than the idea that brutality is a necessary ingredient of the game. All that has to be done to rule out these objectionable features and to preserve the game in its purity is to exclude the element of professionalism. So long as the game is played for itself, for the exercise and pleasure which it yields, for the agility, physical and intellectual, which it developes, no form of amusement can be more free from savagery. But when love of the game is altogether a minor attraction; when matches between rival colleges or clubs stir popular excitement too deeply; when trophies are offered to victorious teams; when players, entirely losing sight of the fact that football was originally intended to be a sport, savagely determine to forward the chances of their team by all means fair or foul—when this state of things has become an actuality—then it is time either to end the game or to mend it.

In regard to our own little sphere, we cannot rid ourselves of the apprehension that the trophy, about which we have heard so much, will be fatal to the true interests of football in Halifax. The annual struggle for the trophy cannot fail, it is true, to introduce more science into the game; but that good will be more than counter-balanced by the bitterness and unscrupulous methods of play to which it will give rise.

PROGRESS AND POVERTY.

I.

It is a truism that man is prone to exaggerate, and it is a no less true saying that we are the slaves of current opinions. Admitting this, we can see how there are two such strongly opposing views of the value of Henry George's contribution to the literature of Political Economy. One party assures us that no good thing can come from him, while the other would have it that the gods have spoken to us in the form of a man. Advocates of these opposing views have almost divided the world of economists between them, so that it is absolutely necessary for us to give independent study to the works of Henry George, if we are to have an unbiased view of his theory. Amid the clanging of more urgent demands I have tried to listen to the words of the oracle from his own lips, and the impression which they have made upon me, where they have brought conviction or where they appeared to me to be found wanting, I shall endeavor to make known in a series of short articles in the Gazette. My study has been hasty and incomplete, and if I have failed to rightly interpret the words of the seer or visionary if you will, I beg of you to be lenient in your judgment, and will remain open to correction.

The pre-supposition on which he bases the science of Political Economy, "that men seek to gratify their desires with the least exertion," seems to me to be too narrow a foundation for any social science. But, as a consideration of this point would involve an ethical discussion, I will pass on to the main problem of his work, which he states thus:—"Where the conditions to which material progress everywhere tends are most fully realized—that is to say, where population is densest, wealth greatest, and the machinery of production and exchange most highly developed—we find the deepest poverty, the sharpest struggle for existence, and the most enforced idleness." He undertakes the task of showing why this is so and of naming a remedy for all the crying evils of the day. Let us see then if there is any truth in this assumption that as wealth increases poverty and enforced idleness keep pace with it. It seems at least to favor this view that, in new countries, where the conditions to which material progress tends have been less realized, poverty in its degraded aspect is unknown. It is true that such a state of society lacks many things which are necessary to the highest development of man, but it is equally true that no one is sacrificed to the god Mammon in order that the rich may the better win his favour. In contrast to this let us look at the condition of the Republic to the south of us, and despite its progress in the arts of material advancement, we shall hear or have heard harrowing tales of need thousands dependent on

public charity—and no doubt tens of thousands who would rather suffer from want than become recipients of favours at the hands of the state. This has taken place, too, when there was no failure of the supply of the necessaries of life, but when there was abundance for all. Does it not seem true then that the condition of the poor becomes more precarious as civilization advances. Such a condition of things was hardly possible sixty years ago, abundance and abject poverty walking hand in hand.

It will no doubt be said, in reply to all this, that it is impossible owing to the complex state of society that this should be so. The wealth of the manufacturer is dependent on the consumption of the articles he produces. It is true that there must be a market for these articles, but no one depends on the lower stratum of society for the sale of his products. Is it not true that the great middle class are those whom the manufacturer depends upon, while the poorer ones may descend still lower in their poverty? And in the case of *enforced* idleness through no fault of theirs, it profits them little if bread is two cents or twelve cents a loaf. Besides this the trade of a country will suit itself to the prevailing demand and the energies of a nation may be exerted, not in producing the necessaries of life, but in the production of articles for interchange between the richer classes. Further, where the struggle for existence is so keen, is it not true that those alone who have wealth are able to take advantage of the improvements made, while the poor have simply to work at their bidding or fare worse.

But do not statistics plainly show that Henry George is in the wrong? These show that the number of paupers receiving public aid is decreasing annually. But do statistics give any adequate idea of the real state of affairs? Private benevolence is now something more than a sentiment, and the numbers who are recipients of such are left altogether out of the calculation. There are many, besides, whose lives are a continual struggle with poverty, who yet scorn to be assisted. Statistics, then, tell no reliable tale. In the face of all this we must admit that Henry George's problem is not a purely fictitious one. Although we frankly admit that on the whole the necessaries of life are cheaper, and that many comforts are now within the reach of almost all, which the rich could not buy some years ago, yet we as firmly believe that the condition of the poor man, under our present system of things, is a very unenviable one, and doubt whether, in spite of all our vaunted progress, his means of livelihood is less precarious than in a much more primitive state of society. All will admit at least that there are evils and will gladly follow Mr. George in his laudable efforts to provide a remedy. Before stating his remedy, however, he shows the inadequacy of all the means that had hitherto been attempted, and in the course of his criticism of these he lays the foundation for his own theory. In this we shall follow him in our next.

RUDYARD KIPLING.

PERHAPS within the last few years, no works of fiction have produced a greater sensation or have been more widely read than have those of Rudyard Kipling. They first appeared in the columns of an Indian newspaper with which he was connected, and for the most part were short stories of military, and native Indian, life.

Mr. Kipling is still a young man, and, to judge by the style of his early efforts, he has a brilliant future before him. He was born at Lahore in 1865, and was sent to England to be educated. Soon, however, he returned to India where he entered upon his career as a journalist, poet, and novelist.

It is hard to say wherein lies the particular charm of Mr. Kipling's writings, but it seems to be in the complete newness of his subject.

Here for the first time we see what Indian life, in all its phases, is: The blind superstition of the people, the tyrannical power of the native princes, and the influence for good which England has exerted and is exerting upon India. In the same way that we turn to Shakespeare's "Antony and Cleopatra," or "Julius Cæsar" for our knowledge of Roman life, or to Kingsley's "Westward Ho," for the manners of the Elizabethan era, so for the life and customs of India we must turn to Kipling.

One remarkable feature of his stories lies in their brevity. Every superfluous word is cut out and nothing is left but the bare facts, yet such is his power of arranging and presenting them that they strike us in the most powerful and effective way.

Then again, he mingles comedy, tragedy, and pathos in a most artistic manner. At one moment we are convulsed with his humour, at the next we are horrified by some awful tale of murder and blood-shed, and then, before we know it, our horror vanishes, and our sympathies are awakened by some sad story that brings the tears to our eyes.

We have seldom read a more interesting little book than the "Story of the Gadsbys." The way in which Kipling weaves together its comedy and pathos is most remarkable; but perhaps he is at his best in his "Plain Tales from the Hills." Here we see, in the highest degree, his knowledge of native life, of the various social ranks and castes, and of the many religions and superstitions of India. In "Soldiers Three" we have an insight into barrack life in the Indian army, and the three soldiers, Terance Mulvaney, Jock Learoyd, and Stanley Ortheris, may be taken as types of the English private. Their quaint humor and homely utterances, their love of England and their hatred of all that is native, their pride in their regiment and their thorough contempt for anyone who does not wear a red coat, interest and

amuse the reader. Mr. Kipling carries these three through many of his tales, and no matter in what connection they appear we never tire of the great, ungainly Yorkshireman, Learoyd, of the little, straight-shooting cockney, Ortheris, or of the mighty Mulvaney, with his never-to-be-forgotten motto, "Fear God, Honor the Queen, Shoot Straight, and Keep Clean."

But now let us turn from his prose writing to his poetry, and here again we are confronted by something altogether new. His "Barrack-room Ballads" is a collection of the songs of the private soldier and gives us some idea of the inner workings of his mind. The book is dedicated to "Thomas Atkins" and of him and his life Kipling sings. The language used is hardly as refined as might be desired, yet the sentiment running through them all is a good one, and perhaps the slangy phraseology of "Tommy" gives the ballads an additional charm.

Take, for instance, his ode to "Fuzzy Wuzzy." It is a eulogy on the Soudanese for their bravery in fighting, and certainly they deserve it for they are one of the few who have broken the British "square." Thus he sings:

"So 'ere's *to* you, Fuzzy Wuzzy, an' your friends which are no more,
If we 'adn't lost some messmates we would 'elp you to deplore;
But give and take's the gospel an' we'll call the bargain fair,
For, if you 'ave lost more than us, you crumpled up the square."

Then again take his poem on "Tommy Atkins," the much reviled private, more sinned against than sinning. Mr. Kipling pleads the cause of "Tommy" in a most forcible manner and demands that the "Widow's" uniform shall not be the soldiers' disgrace.

You talk of better food for us, an' school, an' fires, an' all;
We'll wait for extra rations if you treat us rational.
Don't mess about the cook-room slops, but prove it to our face,
The Widow's Uniform is not the soldier-man's disgrace:

Then we have the pathetic little story told in plain, unpolished language of the life of the regimental water carrier, Gunga Din. No matter how fierce the fire, nor how hot the sun, he was always to the front with his water-skin, allaying the thirst and attending to the comfort of the wounded, and when at last he is killed, while in the act of carrying off a comrade, he never thinks of himself but willingly gives up his own life that he may save another's

'E carried me away
To where a dooli lay,
An' a bullet came an' drilled the beggar clean,
'E put me safe inside
An' just before he died,
'I 'ope you liked your drink' said Gunga Din.
* * * * * * * * *
Yes Din, Din, Din,
You Lazarushian-leather Gunga Din!
Though I've belted you and flayed you,
By the living Gawd that made you,
You're a better man than I am, Gunga Din.

Then his song to the 'Screw Guns' is full of poetry and reminds us of Bret Harte—thus:

"The eagles is screamin' around us, the river's a-moanin' below,
We're clear o' the pine an' the oak scrub, we're out on the rocks and the snow.
An' the wind is as thin as a whip lash what carries away to the plains
The rattle an' stamp o' the lead-mules,—the jinglety-jink of the chains."

Then again we see what the life of the "Gentleman Ranker" is. The men who, having been brought up in the lap of luxury all their lives and having gone the pace and been ruined, have nothing left them to do but to enter the ranks as a private soldier. This is one of the saddest of Mr. Kipling's poems, and there seems to be no silver lining at all to the dark cloud which surrounds them. Wretched "Gentleman Rankers" how we pity them! "Damned from here to eternity." This is their cry:

"We have done with Hope and Honor, we are lost to Love and Truth;
We are dropping down the ladder, rung by rung,
Amid the measure of our torment is the measure of our youth,
God help us, for we knew the worst too young.
Our shame is clean repentance for the crime that brought the sentence,
Our pride it is to know no spur of pride,
And the Curse of Reuben holds us till an alien turf enfolds us
And we die, and none can tell them where we died."

Once again and we are done. This poem is more joyful and melodious. "Mandalay" it is called and the poet sings of the soldier who is now in England, but whose heart is left in far-distant India. He pictures the soft winds blowing through the palms, and the sweet temple bells calling out,

"Come you back, you British Soldier, come you back to Mandalay,"

and then we have the soldier's reply,

"Ship me somewhere east of Suez, where the best is like the worst,
Where there are'nt no Ten Commandments, an' a man can raise a thirst;
For the temple bells is callin', and it's there that I would be
By the old Moulmein Pagoda, looking lazy at the sea,
On the road to Mandalay
Where the old Flotilla lay,
With our sick beneath the awnings when we went to Mandalay,
Oh the road to Mandalay
Where the flyin'-fishes play
An' the dawn comes up like thunder outer China 'crost the Bay.

THE SODALES.

THIS useful society was organized by a former student, who now holds a high position in the teaching ranks of this province. Strange to say it has not been impervious to the onward march of time; decay has set in, and the usual result—death is inevitable. Since the origin of the Sodales, the Philomathic society has sprung up, and the greater part of the students have transferred their affections to it, leaving its less aristocratic sister to struggle on to an ill-deserved end.

The Sodales is the all-round student society; you need not be an embryo philosopher, and read papers on subjects that

Socrates would talk reservedly on; you need not be able to discern in a bug's foot enough wonders to keep an audience spell-bound for half an hour. You are not expected to deal with a question as an expert; you are only expected to stand up, feebly it may be at first, express your opinion, back it with a few good reasons, and then, if your courage fails you, no one finds fault; you will do better next time.

As a college society a debating club should flourish. The days of public speaking are not past, and never will be. The platform is one of the great public educators, and will probably continue so. Many students treat college as a place for mere grinding, and look upon student societies as tempters; they incessantly work, having in view examinations alone. Time flies; a profession is chosen; very little imagination is needed to picture an unpractised speaker—a rambling discourse,—and a disgusted audience. Practice in speaking is especially necessary for those contemplating theology or law. The young theologian who has not acquired complete mastery of himself before an audience, should not be allowed to desecrate the Sabbath with his rambling effusions. The young limb of the law is directly his own loser.

The benefits of the Sodales we need not enumerate; they are well known. Now, how is it that this important society is on the wane? Some say the subjects discussed are unimportant, hackneyed and not interesting enough. True some of the subjects are old ones, yet they afford plenty scope for an interesting and profitable debate. That a subject has been discussed time and again does not prevent it from being a proper subject. A student is not supposed and has not information enough to take up any but an old and oft-discussed question. The object of the society is the improvement of one's power of debate—to make public speaking familiar. What is better than an old subject? The speaker knows something about it; he feels more free and easy, and the ideas flow more rapidly. Frequently it is said that the night of meeting has something to do with its decline. Friday night is the night sacred alike to Church Socials and "At Homes." These are all very good in their own place; but it would be poor comfort to a wearied audience to know that their speaker was *par excellence* at a Church Social, and the *star* at an "At Home." A college society has first claim on us; these others should come in last.

That the Sodales is an Arts Students' society, and its officers are appointed at an Arts Students' meeting, and its laws are fixed by said meeting, is another reason offered to account for its decay. In this it is probable that the Philomathic has the advantage over the Sodales. It (the Philomathic) is a self-governing body, appoints its officers, not because they are present at an Arts Students' meeting, but because they are Philomathic

workers. The Sodales is bound down to accept what is tendered, and, although many of its officers are capable, willing workers, some are only half-hearted, and wish themselves free of the duties incumbent on them. The last two years some of the elected tendered their resignation at the first students' meeting after their appointment. This is probably the great secret of its dragging, wearied existence, and it will not be remedied until the Arts Students' meeting surrenders the right of appointing its officers.

A MODERN-DAY SERMON.

THE GAZETTE 'dun' has given me no peace this last fortnight. He has been importuning me, with a pertinacity which I would consider admirable were I not myself the victim of it, to write something for the columns of the GAZETTE. In a moment of weakness and desperation I consented. The consequence is that I am now suffering from those acute pangs which precede the birth of great ideas.

I propose to preach a sermon. I would not have you infer that I am a Pine Hillite. Much as I respect theologues, I have never desired to be one of their number. They are a fine set of fellows; that is, those of them who have the gift of grace and are not after a fat salary and soft living. But to the sermon. You will find my text, if I am not mistaken, somewhere in "The Professor at the Breakfast Table." It reads thus: "When you find a man a little better than his word, a little more liberal than his promise, a little more than borne out in his statement of the facts, a little larger in deed than in speech, you recognize a kind of eloquence in that man's utterance not laid down in Blair or in Campbell."

Now, brethren, I intend without any 'introductory preface or prefatory introduction' to dip at once *in medias res.* You will observe that my text speaks of two classes of men, who have very little in common.

1st.—The men who talk big and act small.

2nd.—The men who talk small and act big.

We will first consider the characteristics of the first-mentioned class. You have not to go about with a candle or dark-lantern, like that old philosopher who started in search of an honest man, to find a live specimen of this class. You meet him every day. You have often listened to his eloquence. You have often shed tears when he talked thrillingly of 'man's inhumanity to man.' You have often contemplated with reverence his august magnanimity, as he proposed schemes for the amelioration of the condition of the poor. There is nothing small or mean-looking about him. He bears a 'letter of recommendation in his forehead.' His very bearing and walk have something

large and beneficent about them. The benevolence, which his eye reflects, would quench the hunger-pangs of the man who had not touched, tasted or handled an edible for three weeks. Far and wide is he known—far and wide is he respected. The poor man in his necessity calls upon him. He is graciously received—is treated to a lecture on frugality, demonstrating how a man, if his income is $5 a year, should contrive to live on $4.99. The poor man goes away with the philanthropist's ten-cent contribution to misery in his pocket. It is true that a few malicious persons, who have been thus generously helped, vent their ill nature by saying that his benevolent look should be regarded merely as an advertisement, and that one who takes it as a reliable index of the goods within is as badly duped as if he accepted without question the puffing placards in front of a Hebrew's clothing store. But who can escape the voice of malice? He is respected in his day and generation and dies at a good old age, leaving an ample fortune, which his generosity, as it did not lie in that line, did nothing to impair.

Let us now, my brethren, briefly inspect a specimen of the second class. He is not prominent in society and is looked upon as a very common place individual. A man of few words, and disposed to keep his tongue behind his 'ivories,' he does not impress people favourably. He has proved himself, no doubt, a dutiful son, an affectionate husband. His narrow circle of friends are warmly attached to him and would sooner doubt the truth of scripture than his word. But there is no cosmopolitan, though cheap, benevolence about the man's appearance to endear him to those who do not know him. He does not think it necessary to fish with genial look and kindly smile for that 'fool gudgeon—opinion.' Though always ready to substantially help real distress, he does it in a clandestine fashion as if he were committing some criminal action which he was afraid would get abroad. From the business man's point of view he, in this, displays complete idiocy. He might as well cast his money into the fathomless ocean as give it in charity without the expectation of a tangible return. He is a poor, benighted unfortunate to whom life is real, misery is real, God is real; the other is a complacent actor in the farce of life to whom

"The world's a stage
And all the men and women merely players."

No college in all England publishes a college paper.

THE Kansas State University has one woman in the Law department. She is called sister-in-law.

THE authorities of Kentucky University have forbidden all athletic sports, on account of the alleged gambling connected with them.

VERSES OLD AND NEW.

Whether your learning be little or great,
Quote right, or never quote;
Polish your uppers, tho' down in the heel,
And never endorse a note.
Always advance best hand, best foot,
(Best hand, best foot your own),
And thus you may feed on the fat of the land,
While others enjoy the bone.

* * * * *

To eat or to be eaten? That's the point.
To dupe or to be duped? To be the tooth
That preys upon the vitals of your neighbor,
Or let your neighbor's fangs strike into you?
A struggle is this life from birth to death,
A struggle for position and for power.
No contest is it govern'd by fair rules,
With umpires vigilant, from bias free,
To see that no advantage mean is used.
If you but get on top you eas'ly then
With lavish gold can hush the voice of blame,
Or if a few cry out against the means,
The unfair means, by which you gain'd your place,
Their voices weak and quavering will be merg'd
In the deep hum applausive from the crowd,
Who'll make an idol of your cleverness.

* * * * *

Predictions about the time when the millennium may be expected are, with one exception, unreliable. This exception is the prophecy of Holmes, the genial New England humorist. He tells us that we need not order our ascension robes till the time

When lawyers *take* what they would *give*,
And doctors *give* what they would *take;*
When city fathers eat to live,
Save when they fast for conscience' sake;

When Cuba's weeds have quite forgot
The force of suction to resist;
When claret bottles harbour not
Such dimples as would hold your fist;

When, in the usual place for rips,
Our gloves are sew'd with special care,
And mended well the whale-bone tips,
Where first umbrellas need repair;

When he that has a horse for sale
Shall bring his merits to the proof,
Without a lie for every nail,
That holds the iron to the hoof.

* * * * *

LAMENTUM FURIS LIBRARII.

Just think what a blunder,
They won't let us plunder,
While the book-shelves invite us to rob them, 'tis clear ;
Tho' there isn't a book-stall
But cries, "Come and hook us all,"
Yet we leave all the volumes behind out of fear.

* * * * *

The fall of Greece was a terrible fall,
And great disaster brought ;
The fall of Rome was the worst of all,
And sad was the Romans' lot.
But all the falls that we read about,
Of Empires and of States,
Were nought to the fall on the ice last night,
When I was spilt out of my skates.

* * * * * *

He who defers a task from day to day
Does on a river bank expecting stay
Till the whole stream that stopp'd him shall be gone,
Which runs, and, as it runs, forever will run on.
—*Cowley.*

Turn on the hose
Of common sense,
And out love goes
At small expense.
—*Gilbert.*

* * * * * *

Our ingress into the world,
Was naked and bare ;
Our progress through the world
Is trouble and care ;
Our egress from the world
Will be—God knows where.
But, if we do well here,
We will do well there ;
And I could tell no more,
Were I to preach a whole year.
—*Longfellow.*

Correspondence.

EDITOR OF GAZETTE :—

IN the "Nova Scotia Normal," the new journal published by the students of the Provincial Institute of Pedagogics, there is a contributed article entitled "The Normal School and the Colleges" which demands a few words of comment. The writer, evidently an Acadia man, refers to the Educational course established at Dalhousie, and tries to advance reasons why this course should not be considered equivalent to the prescribed course at the Provincial institution. The reason that is given (for there is but one, and that one flimsy and spineless) is as follows :

"Is there not in the condition of things a very important reason for declining to make the exception asked in favor of Dalhousie graduates? I believe there is. The Normal School is a Provincial institution, publicly endowed and sustained for the purpose of giving to the Province its body of trained teachers. It has struggled on for years, carrying a heavy double load, endeavoring to perform its academic work and at the same time give the necessary training on the professional side. And now, just as new possibilities are opened before it, a movement is contemplated—an exception urged—the effect of which will be to prevent the school from accomplishing its highest and best work. What will be the effect of this move on the part of Dalhousie? The other colleges, I predict, will place themselves as soon as possible in the same line."

The author of these sentences shows conclusive proof or his attachment to the Normal School, but he also shows an intellectual blindness which may be the result of his doting affection for his Alma Mater (I take for granted that he is a graduate of the Normal). His desire for the aggrandizement of the Truro institute is not tempered by discretion. He would have her great, no matter at what cost. His partial friendship blinds him to the possibility of the interests of education and the interests of the Normal School not being identical. He talks of the school being thwarted in the accomplishment of its highest and best work. Now even if this dire (?) result should ensue what would it matter? The people of Nova Scotia want trained teachers. They care little *where* they are trained—whether in Truro, Halifax or Wolfville—providing they are *well* trained. The age of monopolies is past. Shall we revive it in educational matters? The plea that there would be a collapse of the Normal School has no significance. There would probably be a collapse of the Mount Hope Asylum, if insanity became an extinct evil ; but no one would advocate the compulsory treatment of sane individuals at Mount Hope to save that venerable institution from collapse. The parallel is a just one. A student of Dalhousie, who intends to qualify himself as a teacher, and, with that end in view, takes the course his *alma mater* furnishes, is then, if he wishes to enter the teaching profession in this Province, obliged to endure in Truro treatment which he no longer needs.

The only valid objection to the recognition of the diploma which Dalhousie offers would be that its course was inferior to that of the Normal School. This the writer in the 'Normal' does not maintain, and no one, whose opinion is worth considering, will. At Truro, to be candid, several accomplishments of the higher sort, such as "Marching to Music," "Construction of Mud Pies," "Drawing," "Tonic-Sol-Fa," "Oratory," etc., etc., are inculcated, which Dalhousie, through lack of funds no doubt, has not yet embraced in its curricula. But though the Normal is ahead of Dalhousie in these minor matters, yet, in the 'weightier matters of the law' the advantage, if anything, is on our side. In fact, altogether too much stress is laid on non-essentials at Truro. A student is not long in attendance before he discovers some flagrant instances of red-tapism.

The Normal School was, until the recent sweeping changes, the rival of such county academies as Pictou's. By the new law, it has been elevated to an equality—with the colleges, shall we say? Not at all! no moderate elevation like that. It soars high above the colleges. The

graduate has to go there, and has to submit to treatment which a plucky ten-year-old lad would resent. He has to look small before the principal, whose scholarship is not greater than his own. He has to flatter that dignified worthy by repeating, parrot fashion, from the 'Notes' prescribed truisms which were venerable with age when Xenophon wrote the 'Cyropædia.' To a sensitive nature this is more galling than chains.

The effect of compulsory attendance at the Normal School cannot be other than disastrous to the best interests of education in our Province. It will be the means of driving a number of the most intelligent students, who are thinking of the teaching profession as a life-work, into other regions or other callings.

STUDENT.

EVENTIDE.

Often in the wintry twilight,
When the night is closing in,
Silently I sit and ponder,
After all the day's loud din ;
And a still and blessed calm
Bathes my soul in healing balm.

Through the window, soft, the moonlight
Gleams, all silvery on the keys
Of the organ, where I'm seated
Dreaming tender melodies ;
While the firelight and the gloom
Work a spell on this old room.

And I know not what I'm playing,
But I know I cannot cease ;
All my soul is steeped in quiet,
And I think the song's called 'Peace,'
And I roam through shadowland
With a strange and mystic band ;

Friends from whom I've long been parted,
Memory shows them all to me.
And they smile in benediction
And in heavenly sympathy.
Angel-wings are o'er us spread
In such moments, it is said—

Blessed moments, when the spirit,
Buoyant, soars from earth away,
Enters calm celestial regions,
Leaves behind its house of clay.
Glimpses of immortal life,
Far beyond this earthly strife.

God in mercy sends them to us,
To allay life's fever-pain ;
We shall live, when He doth call us
These blest seasons o'er again.
Visions see, unknown before,
Not sometimes—but evermore.

L——.

College Notes.

R. G. STRATHIE has been appointed a delegate to represent both Dalhousie and Pine Hill at the International Volunteer Convention to be held at Detroit, Feb. 28th to March 4th.

WE regret that Prof. Murray is still confined to his room through illness. We trust, however, to see him soon again leading his devoted disciples successfully through crabbed Kant and sceptical Hume.

THE Graduating class in Arts have held several meetings lately. At the last meeting a motion was made to present the Library with $30. As the attendance was small, the discussion and vote on the motion were deferred to the next meeting.

THE Arts men recently received an invitation from their brethren in McGill to send a representative to a conversazione to be held there on the 16th inst. A meeting was held to consider the matter, but it was found impossible to accept their kind invitation.

THE semi-annual meeting of the D. A. A. C. was held Friday afternoon, 16th inst., to elect officers and executive for next year, and to consider constitution drawn up by committee appointed at a previous meeting. With but a few changes it was adopted as submitted. The officers for next year are :

Honorary President	DR. FORREST.
President	R. MACILREATH.
Sen. Vice-President	R. MCGREGOR.
Jr. "	R. F. O'BRIEN.
Secretary	—— PEARSON.
Treasurer	J. C. MURRAY.
Executive Committee	GORDON, THOMPSON, SHAW.

THE regular spring meeting of the General Students was held on Friday evening, 16th inst. The following officers were appointed :

Financial Editor	A. M. HILL.
Asst. Financial Editor (Law)	D. FINLAYSON.
" " *(Med.)*	S. WILLIAMSON.

It was resolved that the Financial editor should receive 5% of monies collected, provided such percentage should not exceed $30. The officers for next year, elected at a previous meeting, are :

President	D. K. GRANT.
Vice-President	R. G. STRATHIE.
Secretary	R. G. MCGREGOR.

FOLLOWING Rev. John McMillan's most helpful address on "Deuteronomy, that battle ground of Higher Criticism," came a lecture by Prof. Kierstead on "The Fitness of the Bible for

Unfolding the Spiritual Life of Man." Our highest expectations were realized. With clever arguments clothed in well chosen words, the lecturer showed that both in form and matter the Bible, on account of the unity, variety, and progressive character of its teaching, the ideas which it presents of God and Man and their relationship, together with its account of the true relation of man to man, was eminently fitted for this, its high purpose. Rev. Mr. Rogers of this city will lecture next Sabbath.

On the evening of Friday, the 9th inst., J. D. McGregor, M. P. P., gave the Dalhousie boys, who are fortunate enough to hail from Pictou County, a supper at W. H. Teas on Hollis St. Between 40 and 50 Pictou boys enjoyed the munificence of their member. The affair was exclusive; with one exception, none but Pictonians were to be seen around the board. The exception was made in favour of the Attorney-General, who is always needed at a time like that. As a post-prandial orator, the Attorney-General has not his equal in Canada, and across the border he is ranked with such men as Depew and Ingersoll. While his speeches were the chief feature of the programme, there was quite a number of minor attractions. Mr. McGregor's qualities as a host will be long remembered by those present.

Dalhousie's first hockey match of the season came off last Friday evening, 16th inst., when our team defeated the "United Bankers" by a score of 4 to 1. The team was considerably changed from last season's, and much doubt was felt as to its being able to hold its own against any of the Halifax teams. This doubt has been dispelled by Friday's game and we may reasonably hope by the end of the season to have as many victories as matches to our credit. For Dalhousie Pickering played a rushing game and his many dashes the whole length of the rink with the puck were received with well-merited applause. Clarke for the Bankers played a splendid game and, had he been better supported, the result would not have been so favorable for Dalhousie. The Upper Canada game which is played here this winter is generally considered to be superior to the Halifax game in which there was no off side. In it more chance is given to team play and passing and it is in this respect similar to foot-ball. Our boys have much to learn in team play, doing as yet little passing.

THE CONCERT OF YE SOPHS.

Convocation Hall in the Ladies College Building was thronged on the evening of the 5th inst. with a gay and brilliant concourse of ye mortals. The occasion was the presentation by members of the second year English class of select portions of the Midsummer Night's Dream. The students of Dalhousie, Ladies' College, Pine Hill and Plug Alley were well represented.

Some of the Dalhousie boys had lady escorts. After being favored by a few nursery ditties by ye Freshmen, the audience was relieved by Prof. MacMechan's introductory remarks. The Professor was at his best. In a few happy sentences he explained the nature of the performance. He characterized it as an "educational experiment," and referred to the lack of scenery, and of stage trappings in the acting of Shakespeare's time, and how the imagination of the auditors was left to do its share of the work. The genial Doctor has the tact of knowing the proper length of prefatory remarks, and of erring, if at all, on the side of brevity.

The three scenes enacted were Act 1, scene 2; Act 3, scene 1; Act 5, scene 1. Bottom, Quince, and Snout were represented by J. C. Murray, D. J. Cock and A. M. Hill respectively. Master Murray's appearance on the stage as the grandiloquent Bottom elicited storms of applause. He received a bouquet of choice Timothy from some of his admirers. After his translation into a demi-ass, his success was even more assured. Master Cock deserves great credit for the way in which he acted his part. He did not overact it. Master Hill as Snout showed a surprising agility of limb which endeared him to the ladies.

The second scene enacted was decidedly the most striking. Miss Hill, who supported the role of Titania, acted charmingly. She made a very pretty fairy. It is in this scene that Bottom dons the ass's head.

The third scene, in which the play of Pyramus and Thisbe is presented to Duke Theseus and his lady, ended the pleasant, but too brief, entertainment. Miss Burns, as Thisbe, charmed the audience. The corpulent form of Sutherland alias Theseus alias Jack-and-the-bean-pole added dignity to the occasion. His ministerial air as he rolled forth the famous passage about "the lunatic, the lover, and the poet" was something to be long remembered.

Prof. MacMechan should be congratulated on the success, financial and otherwise, of this venture. We hope that none of the youthful actors will become stage-struck and disappear about the time the next opera company leaves the city. Success in the theatrical line is the most flattering and intoxicating of all kinds of success, and too frequently turns the head of the amateur. Some cynics might be disposed to doubt the wisdom of turning the 2nd year English class into an Amateur Theatrical Company.

Our esteemed contemporary the *Critic*, has taken to itself, not a wife, but a new name. Henceforth it will be called, surely the name is too brief, *The Canadian Colliery Guardian, Critic, and Journal of the Iron and Steel Trades*. We will after this refer to it as "The Unmentionable."

Exchanges.

THE *Harbord Review*, probably acting on the assumption that the works of great writers cannot be surpassed, have published Browning's 'Good News from Ghent.' The poem is a good one, but at the same time it has been bandied about in school books until one is tired of the sight of it, without having it published in a paper. Perhaps, however, the editors were 'stuck' for matter, as we occasionally are, and put this in to fill up space.

Trinity University Review contains the concluding portion of the article on "A German University," mentioned in our last. In conclusion, summing up life there, the writer says: "Under our system individual genius may be checked accidentally along with individual folly or idleness, but we have the advantage of being a corporate unity. A German University may and perhaps does send out more prodigies, but it does not produce the type of a University man—the educational effect is possibly higher, but being one sided is less liberal."

WE welcome the appearance of the *Theologue*, in which we naturally take great pride, as we might call it our daughter. 'Twas on the staff of the GAZETTE the majority of the editors of the *Theologue* served their apprenticeship. The paper is very readable, and is particularly so in its "Aids to Reflection," and "College Notes." Those are the nearest approach to a joke which, we suppose, could be allowed in a theological paper, but as jokes they far surpass in humor such as, "Were you there Billy?" and the like, in which many of our college papers too often indulge. The editorials too are written in a way that does credit to even a Dalhousie graduate, and we look for even better things from them when they have finished their course and settled down to their life's work.

Acadia Athenæum opens with a poem, "The Room of the Gods," which is very Miltonic in tone, but of course may not be a conscious imitation. There is also quite a lengthy article on "Joseph Howe and his benefactions to his native Province." "Hawthorn and the Witch City," will interest all readers of that author. Its editorial is evidently an attempt to soar above the usual class of such writings in college papers. One sentence caught our attention and is applicable to other things than Canadian poetry. "Honest criticism can be productive of nothing but good." Taking this for granted, let us say that Dutch dialect anecdotes are scarcely in the proper place in a College journal; especially in that part devoted to local matters. But as a literary journal the *Athenæum* stands ahead of the rest of its Maritime contemporaries, our own included.

Queen's University Journal has an article of much interest on "Greek Education in the Heroic Age." This is contributed by a man with whose Greek scholarship in another line all Freshmen here have to become acquainted, and those who have a love for the study never fail to appreciate it. The closing paragraph might be considered a plea for co-education. "As the educational life of the Greeks was a reflection of the social and political life, we may reasonably infer that woman, whose social and political influence is represented in Homer as so powerful, was not neglected in the matter of educational training, nor was she treated with that contempt that so many writers on Greek education and life assert to have been her lot." Once again we enter a protest against *De Nobis Nobilibus*.

The Tuftonian has a short article on "The Modern Reader." We copy the last for the benefit of those who may not notice it: "But the days are gone when there were dozens of talented men and women who could rivet the attention of an audience with a classic programme. Must we say—forever? I hope not. I am enough of an optimist to hope that the time will come when the young reader may once more come forward and make his debut before the American public in the role of an expounder of choice literature, and not appear as an ape in a dress suit." We may say that as an offset to its good points the *Tuftonian* has a very vague style of arrangement, and one has trouble to distinguish its editorials from the contributed matter.

Varsity's opening editorial is in defence of the proposed acting of "Antigone," and the chief defence it makes is that there will be some good music! No doubt the "Antigone" is a good play and we can speak from experience too, but to only those who have made a study of it in the Greek, can its reproduction be of any interest; and even in a University that number is limited. Why not imitate us and produce one of Shakespeare's dramas? It would seem from a reference that the University too is infested with what in the world at large are called sneak thieves. We tender the University our sincere sympathy, being ourselves in the same plight.

WE have also received *McGill Fortnightly*, *Knox College Monthly*, and the *Bema*.

A few have responded to the invitation of the Financial Editor to write to him, but there are many subscribers from whom we have not heard for several years. It is drawing near the close of this session, and there is not time to write to each subscriber, telling him how much is due the GAZETTE. Each subscriber, however, ought to know for how many years subscription he owes. We hope that all will respond without further appeal.

WHILE we do not wish to interfere with the private rights of any one, we wish the students would, as far as possible, patronize our advertisers. It will be helpful both to advertisers and to the GAZETTE. Those who advertise think, and rightly so, that the students should deal with them.

Dallusiensia.

HAVE you paid for your GAZETTE? Why not?

AFTER THE SERMON.

BRO. Kellum (to L—J—who has just finished his discourse), "Bress de Lawd, sah, I haven't bin so amused in all my life."

There is a sweet youth at Dalhoosie,
Who t'pples where 'oculi' few see;
'Twould be a grim joke
If he went up in smoke;
'Spontaneous combustion' don t you see.

FRESHMAN McL—n's condition is reported still very serious. Two physicians are in attendance. 'Tis an ill wind that blows nobody any good. We hope and pray that freshmen will carefully and rigidly abstain from using razors after this and confine themselves to scissors.

THE following conversation was overheard in the College the other day, between two lady students who like to pose as critics of great literary acumen. By the way, one lady was a senior and the other a junior.

Lady No. 1: "What part does—— take in the play?"
L. No. 2: "Don't know; I think he has the part of Puck."
L. No. 1: "O yes, he has to wear an ass's head.'

SYNONOMOUS TERMS.

LOVER of the weed (waiting in room of two semi-theologues to accompany one down town), "I'm smoking here just to kill the microbes."
T. (pointing to his room mate) "Come on, come on, F— will be dead when we come back. He's a Freshman."

OUR recent moustache census of the Freshmen was received with so much favor that we are tempted to publish a census of hobbies ridden by several students.

The investigations of our statistician have necessarily been limited.

McG—G—R is fond of cricket. *Fielding* is his forte.

P—rs—n is fond of birds. Ho(l)ming pigeons are his specialty.

B—LL has revived the ancient sport of archery. He is being trained by an accomplished *Bowman*.

H—LL goes in for athletics. He *may* be called the Ac*kellie*s of the Sophomore class.

R—B—NS N S hobby is Foreign Missions. He will probably sail for the New *Hebb*rides soon.

THE Sophs have recently been writing reminiscences of childhood for Prof MacMechan. Some clever 'fish stories' were inflicted upon the Professor. They (i. e the Sophs) will read with interest the following recollection which we clip from *Varsity*.

I recollect a nurse called Ann,
Who carried me about the grass,
And one fine day a fine young man
Came up and kissed the pretty lass;
She did not make the least objection!
Thinks I, "Aha!
When I can talk I'll tell mamma,"
And that's my earliest recollection.

LINES WRITTEN BY A SOPH.

(After Tennyson—some ten miles in the rear.)

In the spring the zephyrs wanton round the beggar and his rags;
In the spring the 'Medicali' will evolve some newer gags.

In the spring, if not immersed, I'll throw aside my books in grik,
In the spring I'll 'do' the merchants who advanced me goods on tick.

In the spring won't I astound them, those who deemed me once a bore,
In the rural scenes of childhood, with the vastness of my lore.

Won't the girls in all our section madly set their cap for me,
While I simper in my shirt-sleeve at their crude rusticity.

Personals.

HEDLY ROSS is getting in good work at Edinburg.

HENRY DICKIE, a graduate in Arts of '83, is in Chicago taking post-graduate work in the Semitic languages.

WILLARD THOMPSON, '93, was in the city for a few days last week. He was enjoying his holiday, as everyone that knows him can readily understand. He is engaged in business in Amherst.

E. M. MCDONALD, one of the liberal candidates in Pictou County, is a Dalhousie boy. Ned is a fine debater, and, if elected, will be quite an accession to the forensic ability of the House.

E. E. ANNAND, who graduated last year, has, we are sorry to learn, been sickly ever since. He left recently for California for the benefit of his health. We hope that he will soon be strong and vigorous and able to return home. Few students ever attended Dalhousie who were more respected and esteemed.

New Books.

PITT PRESS SERIES. DIE DEUTSCHEN HILDINAGEN VON GOUHOLD KLEE. Edited by H. J. Wolstenholme, B. A., (Lond.), Cambridge University Press, 1894.

This book is specially adapted to the use of the "young student" of German. The stories, taken from Dr. Klee's popular collection, "Die deutschin Heldinsagen," are told in a simple, straightforward manner, and introduces the student to the mythological beginnings of German literature. The introduction of the book gives an outline of the stories in English, and also contains a brief discussion of the original upon which they are founded, and the history of the legends.

Notes explaining grammatical difficulties and idioms, and a complete vocabulary provide all that the beginner can require in working through the text.

PITT PRESS SERIES. LOUIS XI, by CASIMAR DELAVAIGUE. Edited by H. W. Eve, M. A. Cambridge University Press, 1894. pp. 261.

This little book is designed for beginners, and from the very careful manner in which it is edited, it should be a great assistance to the young student. Like all the "Press" Series, this book is neat and attractive in appearance, and is printed on good paper with nice clear type. The introduction is very full, and contains (1) The life of the author Casimar Delavaigue, and mentions his chief works. (2) The life of King Louis XI., and of the chief characters in the play. (3) Some remarks on French verse in general, and more particularly as regard rhyme, accent, scansion, etc.

The notes are very full and are printed at the back of the book. They give information not only on grammatical points, but also on all the habits and customs peculiar to the age in which the tragedy was written.

THE SATIRES OF DRYDEN. EDITED WITH MEMOIR, INTRODUCTION AND NOTES BY T. C. COLLINS. MACMILLAN & CO. LONDON, 1893.

This little book is a valuable addition to MacMillan's admirable series of English classics. It contains 'Absalom and Achitophel' Pt. I. 'Absalom and Architophel' Pt. II., with all of Nahum Tate's contribution, 'The Medal' and 'Mac Flecknoe.' Dryden's introductions to the poems are printed in full, and supplemented by clear and concise indroductions by the editor. The volume is prefaced by a memoir of the poet and a sketch of the political conditions of the times, containing sufficient detail to give the student an accurate appreciation of the setting of the satires. The notes' supplement the work of Sir Walter Scott and W. D. Christie, to whom the editor acknowledges his indebtedness. Rich in illustration and explanation, and not so full as to be burdensome, the annotations are all that can be desired. As goes without mention, about a book issued by MacMillan & Co., the typographical work is good, and, with all its excellencies, this volume is among the best of this admirable series of English classics.

ACKNOWLEDGMENTS.

Prof. Seth and H. H. Hamilton, $3.00 each. Miss S. A. MacKinnon, R. G. T. Webster, C. B. Robinson, D. MacRae, $2.00. Miss Jamieson, S. W. Williamson, G. S. Gates, W. D. Coswell W. R. MacRae. E. Brehaut, G. P. Tatrie, — McOdrum, L. P. D. Lilley, F. Yorston, R. A. Irving, G. S. Inman, W. J. Loggie, D. Finlayson, J. E. Wood, A. J. Fraser, A. H. R. Fraser, Hector McInnis, F. A. McMillan, A. B. Copp, H. C. Borden, S. Robertson, R. M. Gillis, C. F. Tremaine, J. Bell, G. Dickie, T. Irving, G. Sutherland, Miss Hamilton, P. M. Macdonald, W. W. McNairn, Willard Thompson, A. G. Cumming, Miss Burgoyne, $1.00 each.

Law Department.

IT seems the continuous duty of the Law Editors to apologize for the character or lack of matter in the Law department of the GAZETTE, but we are getting so used to the proceeding that it does not cause us a wave of trouble. Just now we really have not the time either to sit and discourse on the topics of the hour, or to perform the much more difficult task of running after our brainy contributors to beg for an article.

We do love to sit in the editorial chair and know that we are enlightening the minds of our readers, and administering, as Bill Nye says, "large doses of knowledge at so much per dose." But at this season even this pleasure of being philanthropic is denied us, for the exams, with their exorbitant demands on our energies and time, are upon us. No mere ghosts and shadows of the dreaded creatures now haunt our editorial dreams, but the real, able-bodied ferocious exam, that plucketh where he sowed not, and gathereth little of that which we really know. The glimmer of the extra gas bill is to be seen on all sides, but the longing to excel in GAZETTE literature is buried beneath a confused mass of Bills and Notes, Contracts, International Law, Shipping, *Conflictus Legum*, mingled with domicile, and partnership, &c., &c., with here and there a Crime or an Equity to relieve the monotony.

"The past is bright like those dear hills
So far behind our barque,
The future like the gathering night
Is ominous and dark."

So our readers will—A bill of exchange is an unconditional order in writing addressed by one person to another, signed by the person giving it, requiring the person to whom it is addressed to pay on demand or at a fixed or determinable future time, a sum certain in money, to, or to the order of——- Excuse us but we believe we are off our subject, but for proof on the point see the case of Lebel vs. Tucker, L. R. 3. Q. B. 77.

ONE of the most peculiar wills ever filed for probate in Belgium, is that of Mme. Meens, whose first husband bore the name of Verbaegen. Mme. Meens died in Antwerp, where she lived in a handsome palace in the Avenue des Arts, a few months

ago. She left her estate to all the relatives up to the twelfth degree of kinship, on both the father's and mother's side of her first husband. The only condition was that they should make good their claims within six months. The news of the contents of the will created great interest in Belgium, where the name Verbaegen is a common one. As the widow was reputed to be worth hundreds of millions, the ambitious relatives hastened to file their claims. As a result, the court is obliged to pass upon the alleged rights of 14,554 heirs. The work of the court is enormous. The family tree of one heir alone covers a space of sixteen metres square. The poor people are doomed to disappointment, as the estate turned out to be worth only about three millions. So many lawyers have been engaged in the case that their fees alone will swallow up this amount. At a recent hearing of the case, one of the advocates grimly remarked upon looking at the great number of his brethren: "It seems as if Mme. Meens had left her property to all the advocates of Belgium."

Medical Department.

AT a recent meeting of the Provincial Medical Board a plan was discussed and received favorably, by which, with the co-operation of the Medical Boards of New Brunswick, Prince Edward Island and Manitoba, a practitioner registered in one of these Provinces is qualified, without further examination, to practice in any of the others. In addition to other qualifications for registration, it will be necessary in every case that a man spend four years at college; a year's study with a physician not being accepted as hitherto. This extension of the limits of territory included under registration cannot but recommend itself to the profession in general; and is probably a forerunner of an even more radical change in the future. Without laying ourselves liable to the accusation of being too sanguine, we may safely look upon this change as being the first step toward Dominion registration, the necessity and advisability of which is becoming more and more impressed upon the Canadian members of the profession.

SLEEP.

(PAPER READ BY DR. CURRY BEFORE STUDENTS' MEDICAL SOCIETY.)

Mr. Chairman, Ladies, and Gentlemen:

I have chosen for the subject of my paper to-night, a condition with which we are all familiar, but about the physiology of which we know comparatively little. Sleep is a condition which is still enshrouded in a great deal of mystery. It is, as you know, a condition of repose in which consciousness is suspended. Power gives a very good definition when he says, "Sleep consists in the more or less complete suspension of the physical operations, whilst the purely vegetative processes are continued, but with diminished energy. The heart, for example, beats less frequently, the respirations are slower, and the digestive operations are less active." That is, circulation, respiration and assimilation, which are functions common to the animal and vegetable kingdoms, go on during sleep, though less actively; but all that constitutes the difference between the animal and the vegetable, is inactive or suspended during sleep.

Ever since physiology began to be studied, this condition of sleep has occupied the attention of scientific observers and physiologists. Hence, as you may suppose, many theories have been advanced to explain the nature and the cause of sleep, but no one theory has been universally accepted, which explains the cause of the physiological differences between a brain functionally active or awake, and one functionally inactive or asleep. These differences have been made very apparent, but it is still unsettled whether they are the cause or the result of sleep.

Let us look at some of these differences in the brain and nervous system. Physiologists have likened the condition of an animal asleep to one robbed of its cerebral hemispheres, capable only of excito-motor acts. The nervous system, as a whole, is in a quiescent state; parts of it are wholly inactive, while others, such as the respiratory and circulatory centres, are very much less active than when awake.

As you are all aware, there are an infinite number of centres in the brain, all having diverse functions, but all communicating with one another, and also with the motor and sensory tracts in the spinal cord. During sound sleep all these centres are at rest. If a few of these centres are active, sleep is light and dreamy; if many are active, sleep is rendered impossible.

As most of you know, the intellectual, the emotional, and the volitional centres are situated in the convolutions of the cerebal hemispheres, and during mental operations these centres are active, due to molecular changes in the cerebral cells, which

result in thought, emotion and volition. But during sleep this molecular activity ceases, and consequently mental operations and consciousness are suspended.

During sleep too, the motor and sensory centres in the brain, as also in the spinal cord, rest; the sensory centres become incapable of perceiving ordinary sensations, and the sensory nerves only transmit impressions very slowly and imperfectly. Hence reflex movements are only produced by strong excitations and then slowly. The great nerve centres in the medulla, concerned mainly with the carrying on of respiration and circulation, are, so far as compatible with life, asleep. Thus during sleep, the centres in the brain and spinal cord, as also the nerves throughout the body, are in a state of repose or inactivity; and the work of the economy is carried on with the smallest expenditure of energy possible.

A good illustration of the extent to which the whole nervous system reposes during sleep, is given by Erichsen on "Concussion of the brain and spinal cord?" He says:—"Those who are asleep at the time of an accident usually escape concussion of the nervous system. They may, of course, suffer from direct and possibly from fatal injury to the head or trunk; but the shock or jar, that peculiar vibratory thrill of the nervous system arising from the concussion of the accident, is frequently not observed in them, whilst their more wakeful and less fortunate fellow-travellers, may have suffered severely in this respect." In other words, when awake the sensory nerves are active and transmit impressions rapidly and well, the sensory centres are active and perceive these impressions acutely, and if these impressions be strong enough, they overpower the centres and a condition of shock results. When asleep, the sensory nerves are inactive, and transmit impressions slowly and imperfectly, the sensory centres also are inactive and receive these impressions sluggishly, so that the centres are not overpowered by the impressions thus received, though they be very strong.

Thus you see during sleep, the condition of the nervous system is one of repose or inactivity. Now, how does this condition come about, how does sleep come on? The onset of sleep is gradual. A person does not go to sleep all at once, but this condition comes on gradually. It is said that "general sleep is made up of many particular sleeps." That is, sleep does not involve all the organs at once, but one after another they are involved.

First, look at the brain. Here one set of centres after another becomes obscured till all are involved, then the spinal cord and the organs supplied by these. These must jointly and severally repose for sleep to be sound. If one of these centres be active the repose of the whole body is disturbed, sleep is light or perhaps insomnia results.

The motor centres in the brain are the first invaded. One group of muscles after another becoming relaxed, till there is produced a general relaxation of all the muscular fibres, the only exception to this being the splincters. Sleep next extends to the intellectual centres. The will ceases to control the working of the intellectual faculties and the powers of perception grow less.

Next the centres for the special senses become involved, each in its turn becoming inactive and incapable of perceiving ordinary sensations. Usually this takes place in the following order. First vision, the eyelids close, the eyeballs turn upwards and inwards, and the pupils contract, all for the purpose of excluding the light, the natural stimulant to these centres, and thus allowing these centres to rest. Hence light prevents sleep by keeping the centre for vision, active. The centres for hearing are next involved. These gradually become blunted, till during sound sleep only loud noises are perceived by them. Hence noises prevent sleep, by keeping the centres for hearing active. This is why a person who wants to have an after-dinner nap gets into a dark and quiet corner, so that the light and the noises of the day may not keep these centres active. Monotonous sounds, however, are not perceived after a time, probably due to the centres getting accustomed to them; but their cessation is perceived, and acts as a stimulus to the centres, and produces waking. Some of you, no doubt, have experienced this travelling in the train; you go to sleep notwithstanding the noise, but directly it stops you wake. The centres for smell are next involved. This sense is so blunted by sleep, that even very offensive odours brought in direct contact with the nostrils are not perceived, or the stimulus would wake the person; but directly the person wakes, these are perceived. This accounts for people being suffocated by gas during sleep. This, of course, is partly due to the absence of mucus in the nose. As you know, in order to perceive an odour, the particles of the odour must be dissolved in the mucous secretion of the nose, but during sleep, like all the secretions this is very greatly diminished. Strong odours, however, by keeping the centres for smell active, will prevent sleep. The centres for touch are the last to become obscured. When the other centres are all blunted a person may be wakened by a touch, the strength of which will depend on the soundness of the sleep. Indeed, reflex acts may be excited during deep sleep, if stimulus is strong enough. This may be due to the centres in the cord being active longer and less involved, than those in the brain.

As I have said, the centres in the medulla, though not entirely inactive, like those in the cerebrum, work at the lowest rate of tension compatible with life. It would not do for these to be wholly inactive, for example the respiratory and circulatory centres, or these functions would cease and death result.

So much then in a cursory way, for the manner in which the nervous system is brought under the control of sleep. And remember, the depth or soundness of sleep varies with the degree of inactivity of the centres. If all are inactive, sleep is sound, and strong external stimulation will be required to waken ; but if all or some of the centres be only slightly inactive, sleep is not sound, but light and dreamy, consciousness being only momentarily obscured and the slightest external stimulus awakens.

Now let us look at the effects of sleep on the body. It was formerly believed that the heart pulsated more frequently and stronger during sleep. But we know now that the reverse is the case. The pulse is found to be less frequent and weaker during sleep, being 10 to 20 beats less. Of course, to a certain extent, this may be accounted for by the recumbent posture ; but there can be no doubt that the most important factor in the production of this is the weakened functions of the circulatory centres in the medulla. Hence you see that important organ, which works constantly, rests to a certain extent during sleep. In the same way, due to the weakened function of the respiratory centre in the medulla, the respirations are fewer and shallower, being 4 or 5 less, and wholly thoracic. Due to these two functions being less active, viz., the circulation and respiration, the temperature falls during sleep, varying from $\frac{1}{4}$ to 2 degrees F.

The secretory organs too are less active during sleep. Hence digestion and assimilation are effected very slowly during sleep. Another reason for this is, the gastro-intestinal movements are greatly lessened during sleep. Urine is secreted in smaller quantities, about $\frac{1}{4}$ less, and only contains $\frac{1}{2}$ amount of urea as when awake. But in the urine secreted during the night, a large amount of phosphoric acid is found, and this probably goes to prove that sleep is the time most favorable for nutrition of the brain and removal of its waste products. About the only exception to the inactivity of the secretory organs is the skin. During sleep, the secretion of sweat is increased, due probably to the greater quantity of blood in the skin. This explains the liability to catch cold, when sleeping in a draught or very cold room. And you all know sleep is the time that consumptive and rickety patients sweat profusely. Thus, in a general way, sleep is a condition of rest in which all the organs are functionally inactive.

Now what is the cause of sleep. It has long been held that an important factor in causing sleep, is some alteration in the blood-supply to the brain. There can be no doubt that some interference with the normal blood-supply to the brain, is the cause of many forms of insomnia.

Since this is so, let us glance at the blood-supply to the brain. The centres at the base of the brain and the grey matter of the

cerebral hemispheres are bountifully supplied with blood-vessels; because, when the centres are active, they require a large amount of blood. During activity of the various centres, the blood-supply to them is increased, under the influence of the vaso-motor nerves. This increase is said to be from 30 to 50 per cent. On the other hand, when the activity of these centres is lessened their blood-supply decreases. In other words, the amount of blood supplied to the brain-centres is in proportion to the work being performed by these centres. Some have doubted whether these differences in the amount of blood in the brain ever occurred, holding that as the brain was shut up in a closed bony cavity, in which there was no vacuum, it could not be congested or it would be compressed ; uor depleted or it would create a vacuum. But variation in the amount of blood in the brain is possible ; because as a matter of fact, the brain does not wholly fill its bony cavity, part of its space is occupied by cerebro-spinal fluid, *e. g.*, the vertricles subaracluoid space, &c., and these freely communicate with the spine. So that when the brain receives an increased amount of blood, an equal amount of cerebro-spinal fluid, is displaced, goes into the spine ; and likewise when the brain becomes depleted of blood, the cerebro-spinal fluid returns to the brain to fill up the vacuum. Thus congestion and depletion of the brain may occur.

The brain then contains a lot of blood. Indeed, so great is the blood-pressure in the brain, that the whole brain pulsates, synchronous with the pulse ; and these pulsations may be traced by means of the sphymograph similar to the radial artery. Taking advantage of this, Prof. Mosso of Paris, some years ago, conducted a series of experiments on three persons, in each of whom a portion of the skull was wanting, so that the movements of the brain could be felt. By means of special instruments, he took tracings of the movements of the brain, of the pulsations of the heart and radial artery, when these persons were awake and asleep. The results of his experiments were these :—

1st. In the act of going to sleep, a dilatation and relaxation of the vessels in the forearm occur, with a corresponding contraction in the vessels of the brain; this change being more pronounced during deep sleep.

2nd. That all external stimulation, however slight, such as a light, a noise, touching the skin, &c., each of which would stimulate the respective centre, was attended by contraction of the vessels of the forearm and an increased flow of blood to the brain.

3rd. That all mental activity is attended by a increased quantity of blood to the brain.

These facts prove that the activity of the brain centres regulates the blood-supply to the brain; and also that the

amount of blood supplied to the brain plays a most important part in the production of sleeplessness.

Since Mosso gave the result of his experiments, surgeons in different parts of the world have noticed in persons, where a piece of the skull is wanting, or in cases of trephining, that the brain decreases in size during sleep, and increases again when person wakes.

Dr. Dunham of London, a few years ago, made a series of experiments on dogs, removing a portion of the skull, and examining the brain when these were asleep and awake. His results were these:

1st. During sleep, the brain is in a comparatively bloodless condition.

2nd. Whatever increases the activity of the circulation in the brain, tends to preserve wakefulness; and whatever decreases the activity of the cerebral circulation and the amount of blood in the brain tends to favour sleep.

Thus you see, ladies and gentlemen, all experiments and observations go to prove that during sleep the brain is anæmic and whatever interferes with this anæmic condition causes wakefulness.

Not so many years ago, it was held that sleep was due to a determination of blood to the brain, because it was thought that sleep resembled coma, and it is known that opium produces congestion of tne brain. But coma and sleep are altogether different conditions; the former is a pathological condition, while the latter is a physiological. And opium produces sleep by blunting the nerve-centres. The sleep due to opium is very different from natural sleep.

Clinical experience bears out theoretical teaching on this point. For if we are sure of anything in practical medicine, it is that all diseases that are accompanied by hyperæmia of the brain are marked by persistent wakefulness. Anæmia of the brain then, is a very important factor in producing sound sleep; and if this anæmia be interfered with, wakefulness results.

Another important factor in producing sleep is fatigue, due to the accumulation of waste products in the brain tissue. This is found to be the case with muscles, and it is probably so with the brain. You all know that the muscular fibres are weakened by work. They become feeble and lose their power to contract. Now what is this enfeeblement due to? It is no doubt due to the exhaustion of the oxygen in the fibres and the accumulation in them of waste products, principally lactic acid. During rest, these waste products are removed, oxygen is taken up, and the muscular fibres are restored to their original condition. The same enfeeblement follows the injection of lactic acid into a muscle, as results from excessive work, and requires the same rest for the removal of the acid, showing that the accumulation of the acid in the muscle is the cause of the fatigue.

This, no doubt occurs in the brain and nervous system. During activity, the oxygen in the nerve-tissues is used up, and waste products accumulate in them, producing fatigue and requiring rest in the form of sleep, to get back the oxygen and have the waste products removed. In the urine, secreted during the night, as I have already said, phosphoric acid and other waste products of the nerve-tissues are found in abundance; showing that sleep is the time for recuperation of the brain. Nervous activity, of whatever form, is always attended by the consumption of potential energy which exists in nerve tissues; and by the accumulation in them of waste products, in the proportion to the amount of work done. This activity and the resulting accumulation of waste-products are, after a time, followed by a feeling of fatigue, which suggests repose, and is only relieved by sleep. So that during sleep, not only is the nervous system at rest, but waste products are removed and its potential energy is restored.

And here is a practical point for students. Don't study at the expense of sleep. Some students think they are doing their duty when they pursue their studies night after night, into the wee hours of the morning, and only get 4 or 5 hours sleep. This is an erroneous idea. That student studies best who gets eight hours sleep, in which time the waste products of the brain are wholly removed, and the potential energy wholly restored. It requires no effort on his part to resume the studies of the next day. His brain is like the fire in a stove from which all the ashes have been removed. But the student, who has only had a few hours sleep, with the waste products of the brain not wholly removed, its potential energy not wholly restored, is not in a condition to resume his studies the next day. It requires an effort, in other words the ashes of the previous day have not been removed. These are the most important factors in the production of sleep, and are sufficient for all practical purposes. Other theories have been suggested, but are not universally accepted.

Now just a few words about dreams. It is very probable that all animals possessing brains, dream. All of you, I have no doubt, have seen this evidenced in dogs, barking and making various movements in their sleep, showing that their brain is active. Now what are dreams, and what are they due to? Dreams are simply manifestations of disturbed sleep, and are due to unequal degrees of activity in the psychical centres. Some of these centres are inactive, while others are active. When awake, our thoughts are under the direction and government of the will; but during sleep, the will is suspended. The result is, disjointed and absurd aberrations of thought, which run from one thing to another.

Dreams can only occur when sleep is light, some of the centres being active. They can never occur during sound sleep, for then all the centres are inactive. Hence dreams occur usually, when sleep is coming on or going off, when some of the centres are awake. Dreamy sleep is never refreshing. Persons who dream much get up in the morning as tired as when they went to bed, the reason of this is the brain has not rested as a whole; some of the psychical centres have been active, causing hyperæmia and interfering with the removal of waste-products.

Now what is the practical value of these facts about the condition of sleep? To give us an idea of the causes of insomnia, and how to relieve them. Insomnia is an evidence of activity of some or all of the cerebral centres, due to some cause which we must find out. You must remember insomnia is not a disease "*per se*," but a symptom of many diseased conditions. It may be associated with simple ailments such as indigestion, or with serious conditions as typhoid fever. pneumonia, meningitis, &c. When it occurs in these latter conditions, it greatly increases the danger, by increasing the exhaustion of the nervous system, and the patient generally, at a critical time, when a sound sleep would restore the nervous system, and would conserve the patient's limited strength. In such cases sleep is an important element in bringing about recovery. Persistent insomnia, occurring with the simpler ailments, too, is a serious matter. It is not only the source of much misery and discomfort to the sufferer in that he can't rest at night, but also it wears out his nerve-centres and his organs generally.

Look at the poor wretch haggard and worn-looking, the object of despair, who has to work hard during the day and does not get the requisite rest at night, because he can't sleep. Deprived of the nightly removal of the waste products from his brain, and the nightly restoration of its potential energy, his brain grows weary, and his physical strength becomes impaired. In other words, he becomes a mental and physical wreck. If this condition continues, and he persists in working, what is he doing? Using up the fund of reserve force, which will eventually lead to bankruptcy of his nervous system. Just like the man who, instead of living on the interest of a sum of money, keeps drawing on the principle, must eventually become bankrupt.

Remember, ladies and gentlemen, a man's power to work is in direct proportion to his ability to sleep. Sleep has been truly styled "the cheapest thing in physic." It is just as important for the maintenance of life and health as food and clothing. The novelist Reade very happily speaks of sleep as, "Life's nurse, sent down from heaven to create us anew day by day."

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