

We must freely confess that in our own experience the magazines referred to are filled with pathetic appeals for copy, some sporting notes, and a medical article obviously written in a hurry, and always incomplete.

If we have striven to attain a loftier standard than this, we must plead in extenuation the extreme youth of our journalistic efforts.

We would ask, however, that criticism be of a more constructive nature. We shall receive it gladly and act on it as far as we are able. In our present issue we devote more space to students' contributions and trust our readers in all spheres of professional life will derive something of interest and amusement from our columns.

PRESIDENTIAL ADDRESS TO STUDENTS' MEDICAL SOCIETY.

DELIVERED AT THE MEDICAL SCHOOL, ON 5th MARCH, 1929.
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Mr. Chairman, Ladies and Gentlemen!

It is with more pride than pleasure that I rise to deliver the customary Presidential address to your Society.

"Custom calls us to it!

What Custom wills, should Custom always do it
 The dust on antique time will be unswept
 And mountainous error be too highly heaped
 For truth to overpeer—"

One of my colleagues tells of a parson who having to instruct students, always began:—"Gentlemen, in composing a sermon you should have *one* idea, never less." My present *one* idea is that there should be no medical societies, and "a fortiore", no presidential addresses, but after my to-night's ordeal is over, my view may change.

A medical writer recently said that the essential difference between the bedside worker and the laboratory worker was that the former had to spend a great part of his time in listening to the patient's voice, while the latter could go on with his work, and I am amazed that students who have to spend so much time listening, or ostensibly listening, to professorial voices, should ask for more.

Sydney Smith is reputed to have preached the most eloquent charity sermon on record from the text "He that hath pity on the poor lendeth to the Lord." The whole sermon was—"If you are satisfied with the Security, down with the dust," and I feel that

my most effective and popular address would be to repeat my usual formula—“ I have nothing to add ” without following my usual practice of occupying three quarters of an hour in adding *nothing*. There are two admirable rules of the German Surgical Congress:—

(1) No speaker is allowed to speak from notes.

(2) No speaker is allowed to speak for more than ten minutes. The rules are probably based on Goethe's lines—

“ Wenn ernst, dir etwas ist zu sagen
Es braucht nicht wörter nach zu jagen.”

A minor objection to students' societies is illustrated by the incident of a highland divinity student who having been an assiduous member of some society, when preaching his first sermon electrified his congregation by addressing it not as “ dearly beloved brethren,” but as “ Mr. Chairman and Ladies and Gentlemen.”

The late Professor Gemmell of Glasgow asked his retiring house-physician what book he would like to have as a keepsake, and on being told that Von Jaksch Clinical Methods was the desired volume, said, “ Medical text books are ephemeral—the Poets are eternal and gave him a copy of Tennyson. This is by way of introducing the Poets in a matter with which they have no real concern to cover the paucity of thought and poverty of expression which my personal “ obiter dicta ” would inevitably reveal.

A publisher recently asserted that the author of a book entitled “ Fishermen of the Banks ” knew more of the subject than Mr. Kipling, to which statement a critic retorted that Mr. Kipling's knowledge was based on the Poet's “ lightning flash of sympathy ” a process which goes deeper and gives fuller knowledge, than the pedestrian methods of the rest of us can give in a lifetime of study. Kipling has said—

“ For 'im that doth not work,
Must surely die
But that's no reason man should labour all
'is life on one same shift. Life's none so long.”

And my chief objection to a students' medical society is, that it is a continuation on the same shift of their daily work, and that its attendance involves some sequestration of the medical student from his fellow students in the other faculties, and the consequent loss of one of the chief advantages of a university career. Lord Balfour states that “ A University is not for the acquisition of chunks of knowledge, but to induce an attitude of mind.” Sir William Osler says, “ You are to be members of a polite as well as a liberal profession, and the more you see of life outside the narrow circle of your work, the better equipped you will be for the struggle ”; and a poet counsels—

“ Deign on the passing world to turn thine eyes

And pause a while from learning to be wise.”

The poets indeed, are not unanimously enthusiastic about the benefits of University training: —

Thus Burns—

" Whats a' your jargon o' your schools
Your latin names for horns and stools?
If honest nature made you fools
What sairs your grammars?
Ye'd better ta'en up spades and sho'els
Or knappin hammers—"

and

Longfellow—

" Where are the stately Argosies of Song
Perhaps there lives some dreamy boy untaught
In schools, some graduate of the field or street,
Who shall become a master of the art.
An Admiral sailing the high Seas of thought
Fearless and first, and sailing with his fleet
For lands not yet laid down in any chart."

I think I have said or quoted enough to indicate that you should not seek too early a position of more or less splendid isolation in which direction the medical Society is a step. Oliver Cromwell asserted: " No one rises so high as he who knows not whither he is going."

The objections raised to students' medical societies are applicable in greater measure to the whole fabric of medical education. But in the former case you have your free will, while, in the case of your normal education, the bounds are determined by legislation, over which, students have no, and teachers very little, control, otherwise why should there be such unanimity in its condemnation. Apart from the problem of—

" A fiery soul which working out its way,
Fretted the pigmy body to decay
And o'er informed
The tenement of clay."

a problem insoluble, there is no doubt that in the case of the average student, to borrow again from Osler:—

" Undoubtedly the student has to learn too much
And we teachers try to teach too much—
Neither perhaps with great success."

And further " there is neglect of the great fundamental principle of Plato (by teacher, student and examiner) that education is a life long process."

To cover the vast field of medicine in four (or in your case six years) is an impossible task. The principle is, to put the student on the right path, give him methods, teach him how to study, and early to discern between essentials and non essentials.

Sir James Mackenzie wrote:—" New methods are continually being devised for the detection of new symptoms, and medicine is breaking up into an ever increasing number of sections. Men are devoting much time to special subjects and using the resources of other sciences in developing their speciality. In this way an ever increasing number of symptoms is revealed. This kind of research seems justified by the belief that because a new fact is discovered

knowledge is progressing, whereas the reverse is the case, for this kind of research tends to defeat its object. In place of advancing knowledge it actually hampers it by clouding over the methods and objects of the Science of Medicine by an accumulating mass of details. The progress of true knowledge is ever accompanied by a simplifying of the subject. This is because the laws of nature are few in number. Details, with no understanding of the laws which govern their production, only lead to confusion. The discovery of the laws on the other hand tends to bring order out of chaos by classifying the details according to the laws which govern their production.” In short to resort to the poets again:—

“ Knowledge grows, but wisdom lingers ” and “ To the solid ground of nature trusts the mind that builds for aye. Convinced that there, there only, she can lay secure foundations.” And Clifford Allbutt wrote: “Provision must be made for the integration of knowledge as well as for the winning of it by several adits.”

Professor Nixon in an address on Medical Education alludes to the “ strange medley of a curriculum ” and states that “ Epictetus long ago compared the memorising system to the behaviour of sheep who after they had been feeding should present their shepherds with the very grass itself which they had cropped and swallowed, instead of concocting it into wool and milk.” “ It is possible, he adds, for a student with a retentive memory to gain the approbation of teachers and examiners by the very methods that would have caused the shepherds to slaughter Epictetus’ sheep out of hand.”

The evidence is convincing that the student is overloaded with details with a resultant want of emphasis on general principles. Abercrombie wrote in 1837: “ If medicine is ever to attain a place among the inductive sciences, the first great step towards this distinction will be made when medical enquirers agree to restrict their investigations to ascertaining the “ universality of a fact.” By adhering to this rule we shall avoid two errors which will probably be admitted to have been frequent in medical reasonings and to have had no inconsiderable influence in retarding the progress of medical science. The one is the construction of hypothetical theories on the assumption of principles which are altogether gratuitous and imaginary, and the other is the deduction of general principles on conclusions from a limited number of facts.

The theory of gravitation, even extended as it has been to the great phenomena of the universe, is nothing more than the universality of a fact. Of the cause of that fact we know nothing and all the investigations of Newton were carried out independently of any attempt to discover it.—With Newton’s example we should curb our intellectual pride and not attempt to learn ultimate causes, but be content not to despise, as Sir Clifford Allbutt says “those degrees of moral certainty that in so complex a study and so tentative a practice as Medicine, must be our portion for the present and even for a long future, however great the triumphs of medicine may become.”

The dissatisfaction with educational methods which is determined by examinational demands, is not restricted to one faculty or to one country, as is evident, in this country, by the ever recurring adverse criticism of the matriculation examination, and of the course of training therefor.

Father Ronald Knox scornfully refers to “ The effect of reiter-

ated catchwords on minds trained to read, but not trained to think. Modern facilities for pleasurable enjoyment (had he Students' Societies in mind?) have killed in part the relish for eternity. Mass production has made luxury cheap." And here comes a new burden on an already weary laden profession—"Anaesthetics and the other triumphs of medicine have mitigated the penalties which attach to it, and the same causes which have multiplied pleasure have multiplied pre-occupation. 'A rush age cannot be a reflective age.' " It is a dark picture but still the system must have some vital spark in it, or it would not have survived the assaults on it, not only in our time, but for over sixty years. Marshall Foch was asked whether he found academic studies of value in action and replied "not exactly, but they gave him confidence," and I think you, in a profession requiring action, will have the same experience. At any rate, we have in the meantime to endure and do our best under the system, so a few remarks appropriated from Dr. R. D. Gillespie on the Art of Study are appropriate.

"The number of associations that a new body of information forms for itself depends on the number and kind of previous acquisitions. One of the most important factors in a good memory, especially in the sense of a serviceable memory (not a mere mechanical registration and reproduction), is the multiplication and verification of the connexions of our experience. To take a very simple example—in preparing for an important examination it is unwise to use only one text book. Some text book should be made the main stay, but reference to another, (even by borrowing it and in my experience often not having a memory serviceable enough to ensure its return) will present a new view point or at least present things in a different order so that new associations form. Still more important is it to talk about the subject in as many of its bearings as ones fellow students can be prevailed upon to discuss (which may not be many). "If a man confer little" says Bacon, "he had need to have a present wit." This seems rather to undermine my argument against students' medical societies, but I do not think heart to heart talk is characteristic of such, but rather stereotyped papers and discussion limited to a few recurring decimals of orators, as is the case in medical societies of post-graduate days. "Attendance at lectures" adds Gillespie, "has a similar justification if the lectures are expositions of the subject and not mere essays read aloud in public. They stimulate associations in the same way. In the days of cheap and well made books, this is one of the few remaining justifications for the survival of systematic lectures. The constant perusal of text books unvaried by resort to originals tends to stifle intelligence."

Sir Joshua Reynolds, in contesting the view that study of the old Masters tended to produce more copyists said: "The more extensive therefore your acquaintance is with the works of those who have excelled, the more extensive will be your powers of invention, and what may appear still more like a paradox, the more original will be your conceptions."

I think I have adequately placed before you the more pessimistic views on present day methods of education in Medicine so in fairness I must quote some more optimistic statements.

Osler in his address on "the hospital as a college," states he practised "No new method of teaching medicine, the hospital must

be the college, in which as clerks and dressers the students slowly learn for themselves, under skilled direction, the phenomena of disease," and that the system turned out "men whose faith in the possibilities of their art has been strengthened and not weakened by a knowledge of its limitations."

Oliver Wendell Holmes observed:—"The most essential part of a student's education is obtained, as I believe, not in the lecture room, but at the bedside. Nothing seen there is lost—the rhythms of disease are learned by frequent repetition; its unforeseen occurrences stamp themselves indelibly on the memory. Before the student is aware of what he has acquired, he has learned the aspects and causes and probable issue of the diseases he has seen with his teacher, and the proper mode of dealing with them, as far as his master knows." The truth of these statements is so evident that I do not consider it necessary to emphasise it by precept, any more than I personally insist on its practice by penalising those who neglect to take advantages of their unique opportunities in our hospital, of seeing and handling for themselves, whether under the direction of skilled teachers or not, I am not prepared to asseverate; but I will declare that the opportunities if missed are unlikely to recur, or, if they do recur later on "The student as the years advance rather makes an exchange of knowledge than adds to his stores." The kind of examination has been held responsible for the defects in your curriculum. This is no new slogan. Professor Cleland in 1872 wrote:—"The system of examinations is the bane of medical education. The General Medical Council is much to blame for foisting the Chinese system on the country, with the evil effects of severe examinations now the fashion especially, on the better sort of students, who ought to be left to study in peace in their own way, and with leisure to develop reflection, but who are crushed down into inept perambulating memories." Then he adds, "for all that, being an examiner under the system, I own that I work it and keep the unfortunate wretches with their noses to the grindstones, while I pray for better days." The prayer has not yet been answered though it has been continuously and voluminously offered up since those days. On the other hand Sir William Turner who was Professor of Anatomy in Edinburgh when Cleveland held the corresponding chair in Glasgow, wrote on competitive examinations:—"Some educationists hold that the system is thoroughly bad and that students should apply themselves without the incentive: such, however, is the inherent inertia in human nature—and in students—that it often needs great stimulus to bring your men forward. Experience proves that competitive examinations are a marked stimulus in educational training. Those who object to the system have never proposed a better one." "There's the rub" and there we have to leave it.

After examinations comes naturally—though not inevitably or immediately—graduation, and many authorities assert that the real education of a medical man begins only after he qualifies. I can only say that it is nothing short of miraculous, were the premises true that the student knows nothing, how soon there is nothing the young graduate does not know, and I am saying this not altogether ironically.

Having graduated what manner of man does the student become? Here it were decorous to advance again the opinions of laymen rather than to obtrude my own.

Dryden wrote "so lived our sires ere doctors learned to kill."

And John Ward of Stratford-on-Avon, a contemporary of Shakespeare, classified doctors as "first those that talk, but doe nothing, secondly some that can doe but not talk, third some that can both doe and talk, and fourthly some that can neither doe nor talk—and these get the most monie."

An advertisement of Schering, the drug manufacturer affirms that "The modern doctor unites in his genius, the imagination of an artist, the exactitude of an engineer, and the perseverance of a scientist." No less, wha indeed is like us?!

It reminds me of the mature virgin who remarked "the man I marry must be a hero and a sage, and such alas are rare."

On the other hand R. L. Stevenson from deep personal knowledge, wrote of the doctor—"Generosity he has such as is possible to those who practise an art, never to those who drive a trade; discretion, tested by a hundred secrets; tact, tried in a thousand embarrassments; and what are more Heracleian, cheerfulness and courage." Surely a character worth trying for with all ones strength.

The end of my tale is not yet—for some, a chosen and perhaps underserving few may become professors, and here again my native modesty forbids any clarion notes from my own trumpet, so let me quote another professor in another art, though this involves a harking back to teaching, examinations, and graduates, and incidentally again shows that our medical system of training is not better nor worse than the methods of other faculties.

Quiller Couch wrote:—"The man we are proud to send forth from our schools will be remarkable less for something he can take out of his wallet and exhibit for knowledge, than for being something, and that "something" a man of unmistakable mental breed, whose trained judgment we can trust to choose the better and regret the worse! But since this refining of the critical judgment happens to be less easy in practice than the memorising of much that passes for knowledge—of what happened to Harriet—or what Blake said to the soldier—and far less easy to examine on—the pedagogic mind (which I implore you not to suppose me confusing with the scholarly). for avoidance of trouble, tends all the while to dodge or obfuscate what is essential, pilin- up accidents and irrelevancies before it, until its very face is hidden, and we should be the more watchful not to confuse the pedagogue mind with the scholarly since it is from the scholar that the pedagogue pretends to derive his sanction, ransacking the great genuine commentators—fetching home bits of erudition "non sua poma" and announcing this must be true Sion for we found it in a wood!"

I fear that most professors in these days have to be pedagogic and have not the time to become real "genuine commentators," any more than has the average student time to ransack them for himself.

This must be my apology for tendering you "non mea poma", but fruits of the orchards of others, and, though I lay myself open to the charge of being like Epictetus' sheep, I prefer that to subjecting some of you to the crab apple diet to which, from me, you are inured and I hope more or less immune, or giving to the others who have yet to sit under my tree or rather shrub of knowledge, an unpleasant foretaste of the pabulum in store for them.