when released on licence. I make these brief statements, after reflection based on a not inconsiderable experience of many years, and corroborated during the last five to six years by a large number of interviews held with all kinds of convicts sentenced to preventive detention (with' a view to deciding whether or no to recommend them for licence), and by the reported results of the cases licensed.

I am of opinion, far more strongly than when I began my observations, that even the most correct generalizations which have been or probably will be made concerning convicted criminals in the mass are not likely to be of much positive value in the study or treatment of individuals, so great are the differences of the observable characters of both criminal and non-criminal men.

Artes et Medicina. By Alan F. GRIMBLY, M.A., M.D., L.M.(Rot. Dub.).

THE question of a combined arts and medical curriculum has long been a source of dissension among the authorities of our universities, and it is my intention in these pages to lay emphasis on the enormous value of a modified arts course to students of medicine. The average student looks on the enforced study of arts askance, and regards the accompanying lectures and examinations as the deliberate attempt of a malevolent professorial hierarchy to wreck his scientific career; but in later life, when he finds himself thrust upon his own resources with education and common-sense to guide him, he unconsciously begins to reap the benefit of his B.A. degree.

Although medical students do not take the full course in arts, yet the scope of work to be done is considerable. In the University of Dublin the standard for entry to the medical school is that of the ordinary Matriculation examination, together with the term examination at the end of the first or Junior Freshman year, so that a fairly comprehensive general knowledge is required before a youth can commence his preliminary scientific studies. In the ensuing four years he attends lectures in mechanics, logic, ethics, and astronomy, devoting the Trinity term of each year to one subject, while throughout this period he is examined in English composition and instructed specially therein if found deficient. The important arts examinations are the "Littlego" at the end of the second, and the Final at the completion of the fourth year, but numerous term examinations are held at regular intervals at which a definite percentage of marks must be obtained to gain credit for the year-a highly desirable accomplishment when it is remembered that no man is allowed to have a medical degree conferred until he is qualified in arts.

There are certain subjects in the arts syllabus which are of particular

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importance to the professional man. It is indispensable for marked success in the world that he should have a sound knowledge of his own tongue, a broad acquaintance with Latin and, if in less degree, with Greek, and, above all, instruction in the sciences of logic and ethics.

Medical men are renowned for their ignorance of the structure and grace of the English language. Their writings are marred by malpunctuation and the consistent use of that enormity, the "split-infinitive," and much good work is spoiled by incompetence to find expression for thought in their own tongue. The study of English essay trains men to write in a polished and cultured style, to think regularly and to reason.

Moreover, it seems absurd that many medical men should have little or no acquaintance with Latin or Greek, when one reflects that these languages form the basis of medical terminology. Every day of their lives they make constant use of terms whose present-day significance they realise, but of whose origin they are quite unaware. A sound understanding of Latin is essential for the young student to master with ease the complexity of anatomical nomenclature-a task in itself.

But I wish to lay especial stress on the importance of a thorough grounding in logic and ethics. Surely it is essential for a successful doctor to be acquainted with the "science of the form of thought"? Logic does not instruct afresh; it teaches how to think. It does not inquire into the truth or falsity of the premises but, in the conclusion, brings whatever is implied therein into the domain of consciousness. In practice correct premises depend on sound knowledge and trained powers of observation, and it is an invariable rule that an eminent physician or surgeon is a wise logician. Medical evidence in courts of law is frequently illogical, and diversities of opinion arise on this account that are in no way creditable to the profession. It is absurd if men are expected to become successful diagnosticians while they are unacquainted with the very framework of the process of reasoning, or if they are supposed to deal in wisdom with the varied problems of social life that come to their notice if ignorant of the sciences that treat of right conduct and of the workings of the human mind. Here lies the foundation of that broadness of view and clarity of thought requisite in every practitioner.

Certain objections have been raised in connection with the necessity or advisability of a concurrent arts course which may be mentioned :

(1) Additional expense entailed in the payment of fees in the arts school.

(2) Interference with work in the medical school. This is unavoidable to some extent, and it is no doubt trying to the young student to be obliged to attend lectures and pass examinations in arts when he wishes to devote all his energies to his profession; but this objection LXV. 7

is far outweighed by the ultimate gain later in life. Those students who, on account of such additional work, leave their University to pursue their medical studies elsewhere are generally failures, and never succeed in passing the barrier of their second or third professional examination.

(3) It is held by some people that the study of arts at all is waste of time; but such people, by heredity or acquisition, are cursed with an habitual attitude of mind that places them outside the pale of reason, and renders them immune from all argument save the argumentum basilinum.

The claims of concurrent education in arts to recognition as a definite phase of modern scientific teaching are manifest if we consider the advantages thereof in tabulated form :

(\mathfrak{r}) Young students are trained to form sound judgments and to think in logical sequence of ideas. Guidance in argument is afforded, and by inculcation of regular habits of thought and steady growth of the powers of reasoning the foundation structure is evolved whereby in future years difficult problems in diagnosis are grappled with in triumph.

(2) Training of memory is inseparable from cultivation of rational thought, and the power of rapid and intelligent interpretation of the objective. Only by weeding out the tares from the medley of impressions ceaselessly reaching the conscious mind, by the elimination of unessentials, can a satisfactory end be attained. Pure Reason exists only in the fantasy of early Kantian imagination; for all reason springs from a myriad association of past experiences culled from pre-existing impressions—from the memories of the bygone—and is directly influenced in the individual by the receptive and retentive faculties of the cerebral cortex. Upon accuracy of memory depend our ideas and judgments manufactured in the marvellous synthetic laboratories of the spheres of association.

(3) The origin and true significance of terms and phrases used throughout existence are understood; otherwise the language of the medical man must be but superficially intelligible to him and fundamentally incomprehensible.

(4) The sphere of education is enlarged, and the gain in general knowledge thereby is of vast importance to the practitioner in his dealings with people in all walks of life with whom he is constantly brought in contact.

(5) Knowledge of logic and ethics is essential for the preliminary study of psychology—a science much neglected in the medical curriculum. A doctor should not only be broad-minded and logical in argument, but for success should have a thorough understanding of the psychology of complex man and of possibly more complex woman. (6) There are few occupations in which the sapient physician, who has availed himself to the best of his ability of the resources of his University, cannot take an intelligent interest. We live in a prophylactic age, and if the medical man is able to, and does, take such interest in the lives of his neighbours, particularly in the case of bodies of men found in foreign stations and ships at sea or far from civilisation, he exercises unconsciously a mental prophylaxis arising from his personality and depth of knowlege of men and events.

(7) By nature of the widened scope of University life, the student encounters every day men of his own age engaged in other lines of study, and becomes acquainted with thoughts and ideas of all sets and parties. Every medical student ought to belong to one of the established arts societies on this account. From listening to, and taking part in, debate and meeting regularly his fellows in other phases of life, his horizon is broadened, and he becomes better adapted to play his part in the eternal struggle for existence.

There are certain changes desirable in the present curriculum of our Universities, both in the arts and medical schools, which appear to me to be very greatly needed, and which ought to be put into execution with little delay. The suggestions I wish to make are the following :

(1) The substitution of lectures in psychology for those in astronomy in the fourth year in arts.-Scant attention has been paid to the study of psychology and insanity in the past, but some slight effort has been made in recent years to recognise their significance. The subject of mental disease has been practically left to the individual inclination, with the result that hardly 1 per cent. of students know anything about this important branch of medicine, the few that attempt to do so finding their way barred by insuperable obstacles arising from ignorance of elementary psychology. Men qualify in their profession with but the haziest notions with regard to the nature of concepts and percepts, volition, the formation of ideas, and so forth, and some are not even able to differentiate between a delusion, an hallucination, and an illusion. Men employ drugs to cause sleep without any knowledge of the theories relating to the state they attempt to induce, and a common indication of the neglect with which this science has been treated is found in the frequent use of "mind" and "brain" as synonymous terms by physicians of age and standing. The study of psychology follows in natural progression from that of ethics and logic, and it would be of enormous advantage to the profession to inaugurate lectures and examinations in this important science, and, furthermore, to lay more stress than has been the case hitherto on instruction in mental disease.

(2) The establishment in schools of medicine of a chair of medical etiquette.—On reflection it appears more than strange to think that this

subject should never have been regarded as a necessary part of the medical curriculum. It is unworthy of the magnificent resources of our Universities that students should be allowed to qualify with absolutely no instruction in the recognised code of professional men. Breaches thereof are sometimes committed which would have been avoided if the offender had been forewarned. It is a duty to teach every fifth year student medical etiquette for his own protection, in view of the great responsibilities that fall on his shoulders when he has his professional degree conferred.

(3) Fixing the minimum age of entry to the medical school at eighteen years.—I realise fully that objections are many on this point, and in particular that it is impracticable in time of war, when young doctors are urgently needed for our Navy, Army, and Air Force. But with the approach of peace in the near future it would be a wise stipulation to make. When a youth enters the school of medicine he leaves his boyhood behind, and settles down to several years' hard work if he be ambitious, and if not ambitious he fails to count in the world, where the fight for life is continuous by night and day. A boy of sixteen is too young to undertake such serious studies, and has not the physical powers of endurance, whatever be his mental capabilities; moreover, far too young is he to learn the first cruel incompatibility of life—the incompatibility of work and play.

I have endeavoured in the above pages to enumerate the benefits of a conjoint teaching in arts and medicine, but I would issue an especial warning to the unwary few who may be led astray by evil counsel into the abyss of metaphysics. There are young men who gambol through life in endless quest of the *summum bonum*—the Chief Good—wasting precious years of youth in search of eudaimonia, an eternal striving after the intangible somewhere in the nebulous zone between the exotic realms of Epicurus and the trackless wastes of the Utilitarians. Let students of medicine beware of metaphysics!

I plead for lectures in medical etiquette and regular instruction in psychology and mental disease. To quote Haeckel: "The psychologist especially acquires, by the study of mental disease and the visiting of asylum wards, a profound insight into the mental life which no speculative philosophy could give him." The foundation of a successful career is built upon education and early practice, and if a student avail himself with diligence while young of all the resources at his command, he will emerge into the world learned in his profession and wise in philosophy, endowed by his University with one of the greatest of gifts—an understanding of the Science of Life.

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