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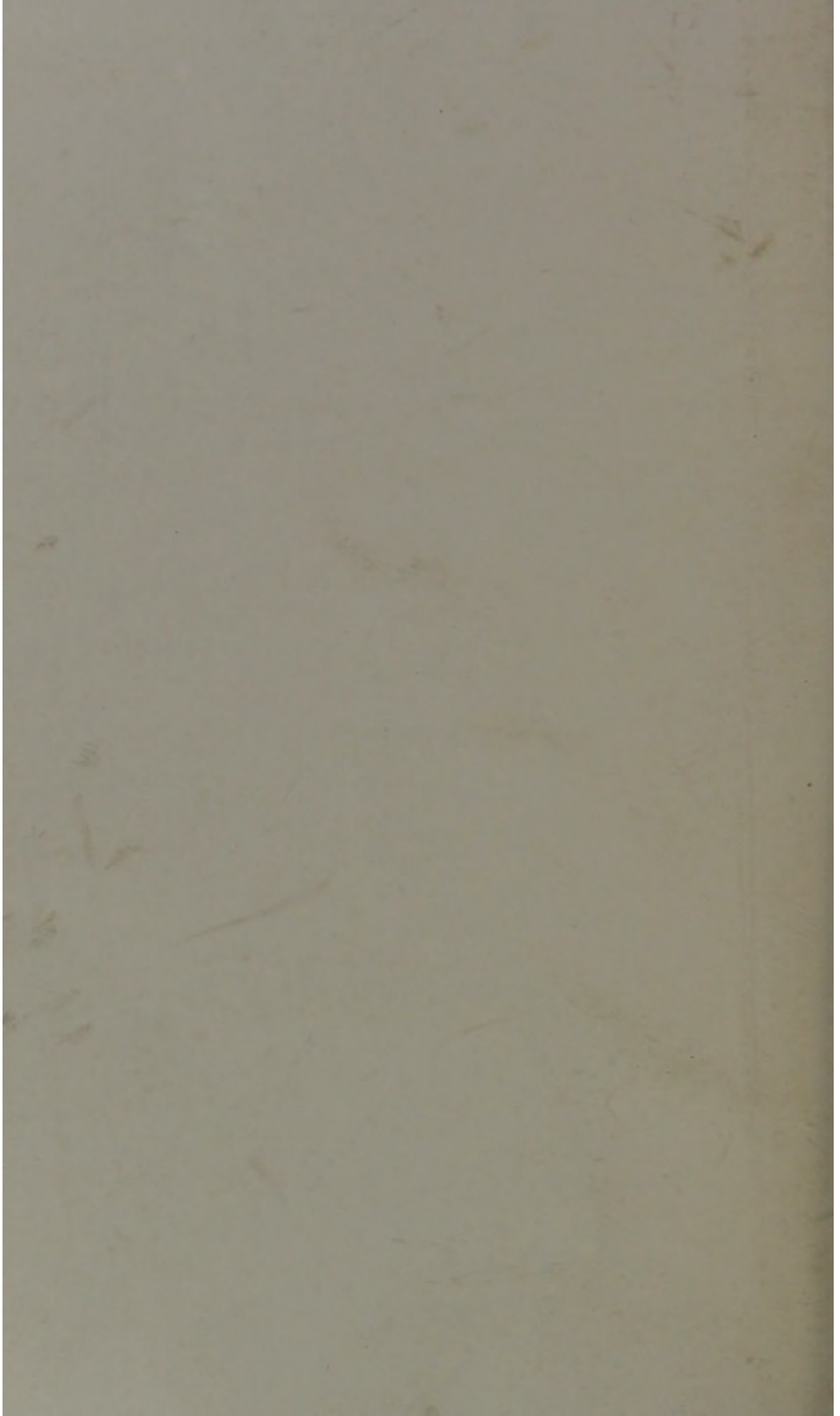
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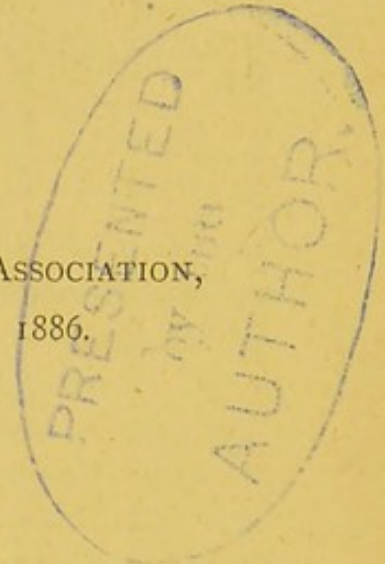
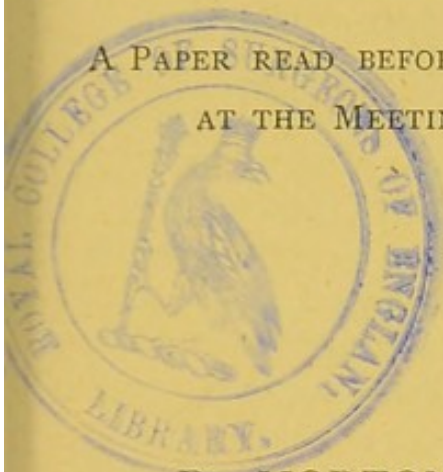
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DENTAL EDUCATION.

A PAPER READ BEFORE THE BRITISH DENTAL ASSOCIATION,
AT THE MEETING HELD IN LONDON, AUG., 1886.



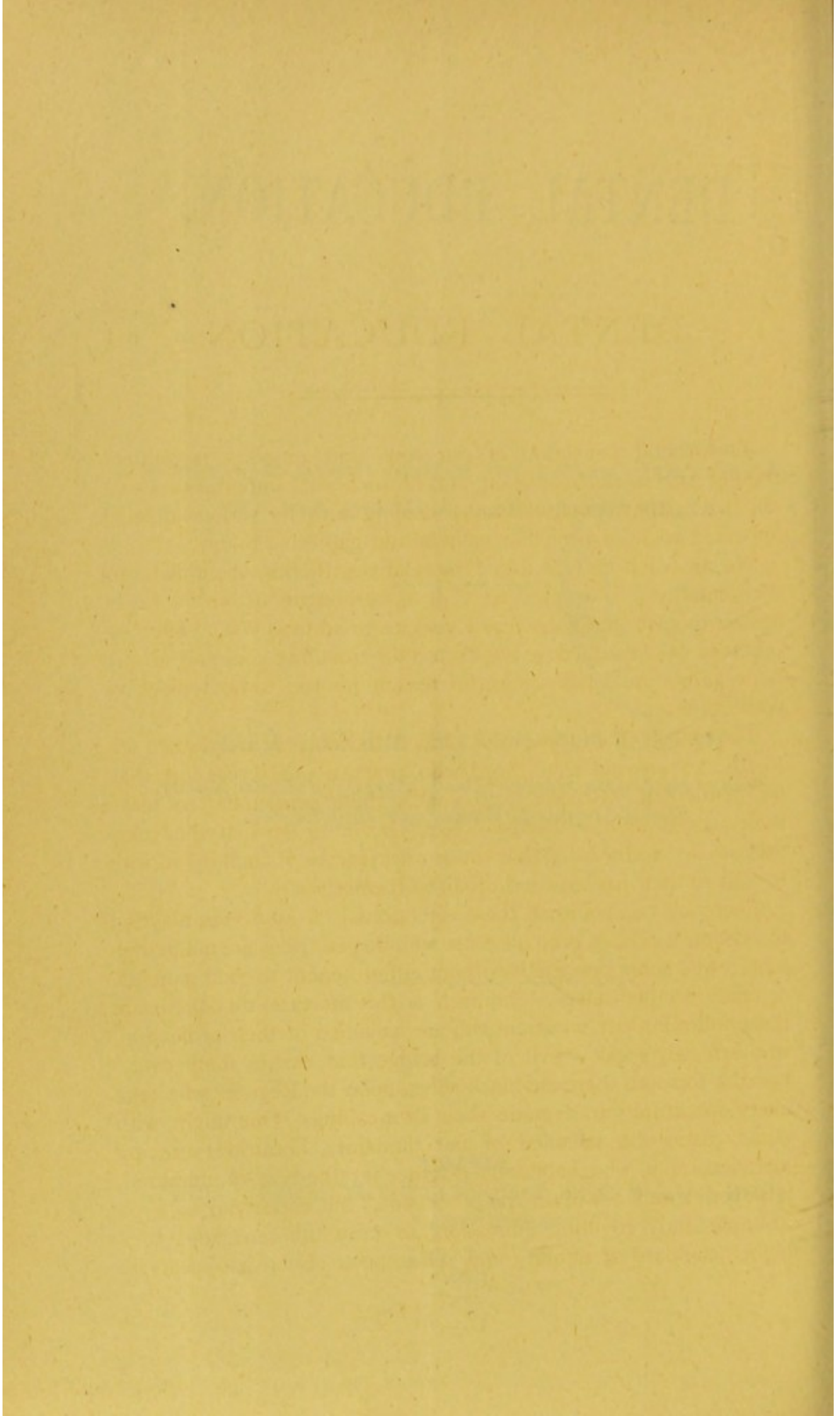
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—
1886.



DENTAL EDUCATION.

THE dental education of our sons and pupils is a subject fraught with so much interest, and of such vital importance to us all, that a short practical paper dealing with its various details, appeared to be of probable value at our gathering to-day.

We are each in turn asked by relatives, friends, or pupils, how the dental tyro is to proceed? It is to prepare us with a ready answer to such questions that I venture to address you. The importance of the subject is my excuse for troubling you, and may, I hope, prove an equally powerful reason for you to be lenient in your criticism.

The objects of education as applied to dentistry are, I take it: Firstly, to provide that those who practise our profession shall be gentlemen. Secondly, to enable these gentlemen to place their names on the Dentists' Register, in order that they may practise it; and thirdly, that those who practise it shall do so with benefit to their patients and credit to themselves.

There are failures in all these directions. *A gentleman* may fail to become a dentist, even all those who do practise it are not gentlemen, while some practise it without either benefit to their patients, or credit to themselves. So much is this the case, that there are those following our vocation who are ashamed of their profession, who can only speak "evil of the bridge that carries them over," because forsooth there are black sheep upon the Register who take every opportunity to degrade their own calling. One might with equal justice be ashamed of our humanity, because there are members of it who habitually disgrace it; the best of mankind, however, "walk *not* upon the other side," but endeavour by good example and providing education, to raise the renegades to a higher standard of nobility and self-respect. Such it appears to

me is the line of conduct adopted by this Association, consequently it has attracted to itself the best and truest members of our profession; conspicuous among these, we must allow, are the two gentlemen our Sovereign has been pleased to honour with knighthood.

The requirements of the necessary curriculum to get upon the Dentists' Register vary, according to the country in which the examination is passed. It is my intention to deal only with the requirements of the College of Surgeons of England, that being the one most frequently taken, and generally admitted to be the most thorough.

The curriculum may be divided into—

- a.* Preliminary education.
- b.* Professional education.
- c.* Examination.

The regulations with regard to "the Preliminary" are to be obtained at the General Medical Council Office, 299, Oxford Street, several copies of which are upon the table. From these it will be seen how numerous are the opportunities for our youths to pass the necessary standard. I can hardly speak about them all, but of the more important I will say a few words, viz., the Matriculation of the University of London, the Oxford and Cambridge Local Examinations, and the Special Examination conducted by the College of Preceptors for Medical Students.

The matriculation, which is held in January and June, is on all grounds the best of these—it should be passed when a youth is sixteen or seventeen without much difficulty. It possesses these advantages:—It ensures the boy receiving a fairly good education, it opens the doors to all the professions, and if at any time during his pupilage or hospital career, the student should forsake dentistry for any other branch of the healing art, it is open to him to do so, without returning to school books and passing another preliminary examination.

Much might be said here, did time permit, about the education of boys, but I will content myself with saying, that I consider the requirements of the University of London the most perfect. It does not overrate the classical, the modern, or scientific side, but has struck out for itself an independent and useful line of education. The embryonic student failing this, should "negotiate" either of the local examinations of the older universities, and failing these, the one conducted by the College of Pre-

ceptors, the order in which these are placed showing their relative values.

This comparatively recent addition of a preliminary examination to the dental curriculum is of great importance, it provides that as the students will be members of a learned profession, they should be fitted to adorn their calling in life, and the society in which they will be called to move. It is the foundation, moreover, on which the whole super-structure of their professional education is to be built; it is therefore *impossible* to exaggerate its *importance* or to make it too thorough. Let me beg of you not to advise our youth to pass the examination which is easiest, our common frailty prompts us enough in that direction, but we all should encourage them to pass such a preliminary examination, that in their future they can contemplate it with pride and satisfaction.

The necessary preliminary having been passed, the purely professional part of the education commences, by an apprenticeship to a registered dentist, in order that the mechanical side of our calling may be thoroughly mastered; the College of Surgeons of England requires this to extend over three years. Immediately the articles are signed the youth should register as a dental student.

No professional work is recognised by the College of Surgeons prior to registration. It is important to note this; many heart-burnings and much trouble to officials would be saved if this simple regulation was thoroughly grasped, viz., first preliminary examination to be followed by apprenticeship and registration simultaneously.

It is impossible to over-rate this mechanical training, and three years is not a day too long to spend in a workshop to learn and master the many minutæ of the mechanical art, without a thorough familiarity with which it is impossible to be a good dentist. I hope the day is far distant when this pupilage will be abolished.

In another country it is the custom, I believe, for the mechanical training to be given at the dental school. We in England should be sorry to see this plan adopted, for we find enough to do at our schools to teach the operative part of our profession; moreover, the mechanical part cannot be taught in classes as thoroughly or well as under the personal supervision of a skilled mechanician.

There is one more danger we must avoid, the separation of our profession into two parts—operative, mechanical—this would be a

fatal mistake. The successful dental mechanic is he who has a thorough practical knowledge of the anatomy of the oral cavity and its surroundings, and who is deft and clever in his digital manipulation. The successful operator is he who, in addition, has a thorough practical knowledge of the laws that govern mechanical matters. The first-rate dentist is he who combines both qualities in an unusual degree.

At the expiration of three years the hospital career should commence by simultaneous entrance at a dental and general hospital. The candidate should now register as a medical student, not necessarily to take a medical or surgical qualification, but lest at some future time he should wish to do so; the work which would be done at the general hospital for the dental qualification, and is largely the same as that required for the general qualification, need not be repeated, but the whole of the time so spent should be allowed to count as part of the medical curriculum.

This hospital work is the most serious in a student's career; he is launched into London life mostly without any influence over him, save that of his early training at home and in the workshop; in proportion as they have been thorough and earnest, as a rule is his time spent during his student days. These hospital years should be spent in real hard work in mastering every detail of the operative department. The students should seek advice from their teachers, and avail themselves of every opportunity of learning from the large experience of the members of the hospital staff, in order that each generation may progress nearer to perfection. At the general hospital let the time be spent mainly in the dissecting-room, the physiological laboratory, and the out-patient department, in which places the most practical part of the medical education is obtained. The out-patient room is not sufficiently often visited by the general student, and the attendance of the purely dental student is, I fear, nearly nil.

This brings me to examinations—class examinations, and the examination for the license in dental surgery. Of the former, I should like to say to the student, never miss an opportunity of attending these; if they consist of *viva voce* questions only, they are useful; but if in addition there is a paper to be written, they are most valuable to teach men to write papers and prepare them for the ordeal at the College of Surgeons. This latter is really very thorough, but I should like to see added to it an examination in the mechanical department, if, as I maintain, the two depart-

ments are to constitute the whole profession, and a board of examiners is to decide who is fitted to practise it, each side of the profession should be made a subject of examination.

Dental materia medica might with advantage be a subject of examination, and replace in the curriculum the ordinary course of materia medica; this latter has virtually been removed from the double qualification schedules, and relegated to pre-hospital days.

There is yet another question of interest to us, viz., the desirability of maintaining and cementing the union between the dental and other branches of the healing art. I think we are all agreed upon this? Nothing will so strengthen this bond, as members of our department taking, in addition to the license in dental surgery, the so-called double qualification; it will place the dentist on the same platform as the mass of the medical profession, and it would be the most practical way of showing our desire that such an end should be consummated. I should indeed be sorry to see the dental regarded as a distinct profession, already it is too much considered so by the general public. I cannot too strongly advise those who have to train young men, to persuade them to take the double qualification of the conjoint colleges of surgeons and physicians. Should this mode of procedure be adopted, I venture to predict that the progress of our vocation in the future, will be more rapid and thorough in its nature than it has ever been during the last thirty years. This advance will be of such a character that dentistry will take its place as an essential part of the great medical profession, the other branches of which will be pleased to acknowledge the dentist as a brother pledged with them to the relief of human pain and suffering.

Increased medical and surgical knowledge is of great value, and enables us to take a larger and broader view of matters concerning oral surgery. He who spends four years instead of two at a general hospital, must have this extra knowledge.

The following incident points out my meaning. A lady about forty, consulted a London dentist with regard to her teeth. During one of his operations, he noticed a small papilla on the side of her tongue. He enquired about this and found it had existed for several months. The tongue was examined carefully, the glands in the neighbourhood were not infiltrated, but there was slight cachexia and loss of weight. She was advised to have the papilla and some surrounding tissue removed, and for this purpose to

consult an eminent surgeon. This was not done, and within two years she died of cancer of the tongue. Had the operation been performed at the time it was advised, very probably this lady might have lived for many years. This demonstrates in a practical way the usefulness of the larger knowledge.

It is urged on the other hand, that the course I recommend takes too much time and money, I can only ask what they weigh in the balance against knowledge and power? Moreover, neither the time nor the money are wasted; but may be regarded as invested capital that will return an adequate interest. It is possible also for the student to meet this extra expenditure by taking *locum tenens* during the vacation.

Yet again it is urged, that he who devotes all his time to dentistry pure and simple, must be the best operator. This is not borne out by experience; our best men almost invariably are those seeking the higher qualifications.

After a student has been at the hospital some time, he often evinces a desire for another qualification, and is not satisfied with the "L.D.S. only" as he calls it, and wishes to seek in another hemisphere the high sounding title of "Dr." This appears to me to be a slight on our country. Our schools and English dentistry, all of which, I maintain, are the finest the world produces, and he who boasts the M.R.C.S., the L.R.C.P. and L.D.S., obtained by study in our best English schools, can hold his own against the world, and if recent agitation in the medical profession ends successfully, he will be given the title of M.D.

Mr. Hutchinson, when he found we were to deal with kindred subjects, asked me to handle also the subject announced in his name. I will therefore endeavour to point out how it is best for the dental student to obtain these three qualifications.

After the preliminary examination has been passed, the student should register as both a dental and medical student; during the mechanical apprenticeship receive instruction from any registered medical practitioner, or from any pharmaceutical chemist, or at a public hospital, or infirmary, or dispensary, in chemistry, including chemical physics, practical chemistry, pharmacy and materia medica, and present himself for examination in these before entering a hospital; or if he prefers it, he may take the two latter later in his career, viz., at the second examination. At the expiration of his first winter let him pass in elementary anatomy and physiology, at the end of his second winter let him take anatomy and physiology.

At the expiration of two years he may present himself for the dental license ; he will during these two years have been attending simultaneously both the general and dental hospital. During the remainder of his time he should devote himself to surgery, medicine, and midwifery, &c., in which subjects he may be examined at the expiration of two years from the time of passing the second examination.

It was felt that the recent changes brought about by the amalgamation of the two colleges have greatly increased the difficulty of obtaining these higher qualifications ; I must ask you to take my word for it that such is not really the case, the curriculum is really simplified, and a candidate now is only re-examined in the subject in which he fails. The old M.R.C.S. only, as a separate diploma, is a thing of the past ; it is only advisable to deal with things as they are. I may be asked what is the extra time and money required to take these extra qualifications ? It takes two more years, but the whole of these need not be necessarily spent in London. One winter and two summer sessions may be passed in one of the following ways :

- (a) Attending the practice of a hospital, infirmary, or other institution recognised as affording satisfactory opportunities for professional study ;
- (b) Receiving instruction as a pupil of a legally qualified practitioner holding such a public appointment, or having such opportunities of imparting a practical knowledge of medicine, surgery, or midwifery, as shall be satisfactory to the two colleges ;
- (c) Attending lectures on one or more of the required subjects of professional study at a recognized place of instruction.

The twenty cases of labour can be signed for by any legally qualified practitioner.

The duties of clinical clerk and surgical dresser, which must be discharged after the second examination during six months each, can be performed at a general hospital, infirmary, or dispensary, or parochial or union infirmary, recognised for this purpose.

These arrangements make it less costly for students, whose parents live in large towns where such public institutions are found. A large proportion of the expenditure being the living in town.

The actual increased expenditure in hospital fees is about fifty or sixty guineas. The examination fees for the three examina-

tions for the double qualification under the conjoint scheme, is thirty-five guineas.

For the convenience of reference I should like to tabulate as concisely as possible the best mode of procedure for the dental student to obtain the three examinations :

1. Preliminary examination.
2. Apprenticeship.
3. Register as a dental and medical student, or this latter can be postponed until entry at hospital.
4. During apprenticeship receive instruction as above in chemistry, materia medica, and pharmacy, and pass in them at the College of Surgeons.
5. Enter simultaneously at a dental and general hospital.
6. Pass in elementary anatomy and physiology at end of first winter session.
7. Pass in anatomy and physiology at end of second winter session.
8. Take dental license at end of second year.
9. Devote remainder of time to medicine, surgery, midwifery &c.
10. Pass, at expiration of two years from second examination, the final test of the two colleges.

In conclusion, I should like to point out, side by side, the requirements of the curriculum for the dental license and that for the double qualification, thus demonstrating how much of the latter curriculum must of necessity be taken by the dental student, and how few the extra subjects required.

Requirements for Double Qualifications at a General Hospital.

Anatomy—One course of lectures.

Physiology—One course of lectures, three months extra practical physiology.

Dissections—Twelve months.

Surgery—One course of lectures.

Medicine—One course of lectures.

Materia Medica, Chemistry, Practical Chemistry—Done before entering school now.

Requirements for Dental Licence at a General Hospital.

Anatomy—One course and twenty lectures on head and neck.

Physiology—One course of lectures.

Dissections—Nine months.

Surgery—One course of lectures.

Medicine—One course of lectures.

Materia Medica—One course of lectures.

Chemistry—One course of lectures.

Practical Surgery and Medicine — Three winter and two summer sessions.

Practical Chemistry — One course of lectures.

Practical Surgery and Clinical Lectures— Two winter sessions.

Midwifery—One course of lectures, and twenty labour cases.

Practical systematic instruction in medicine, surgery, and midwifery.

Instructions and proficiency in Vaccination.

Pathological Anatomy—One course of lectures and demonstrations in post-mortem room during attendance on clinical lectures.

Forensic Medicine—One course.

Clinical Lectures on Medicine—Nine months.

Clinical Lectures on Surgery—Nine months.

Clinical Study on Midwifery—Three months.

Clinical Clerk—Six months.

Surgical Dresser—Six months.

(1)

