

GOVERNMENT OF THE GOLD COAST.

REPORT

OF THE

Committee appointed by the Secretary of State for the Colonies to formulate a scheme for the establishment in British West Africa of a College for the training of Medical Practitioners and the creation and training of an Auxiliary Service of Medical Assistants.



GOLD COAST:

Government Printing Office, Accra.

1928.

215/No. 55/58/1920.

MEDICAL DEPARTMENT,
P.O. BOX 138,
VICTORIABORG, ACCRA,

22nd February, 1928.

SIR,

I have the honour to submit the report of the Committee appointed by the Secretary of State to formulate a scheme for the establishment in British West Africa of a College for the training of Medical Practitioners and the creation and training of an Auxiliary Service of Medical Assistants.

2. The Members of the Committee who serve in the various West African Colonies desire to express their keen appreciation of the help given to the deliberations of the Committee by Dr. G. H. K. Macalister, Principal of the College of Medicine, Singapore. His expert knowledge of the details of organisation of a School of Medicine in the tropics and of the pitfalls to be avoided was of inestimable value.

3. The Committee is also greatly indebted to Mr. W. T. Harragin for the keenness, ability and courtesy with which he carried out his, by no means easy, duties as Secretary. Mr. Harragin's assistants Messrs. H. W. Hesse of the Secretariat, and W. C. Quao of this office were most efficient and worked very long hours.

4. Advice on technical points was readily given by all departments and the Committee is especially grateful for the great help of the Law Officers, the Treasury, and the Public Works Department.

I have, etc.,

W. D. INNESS,
Director, Medical and Sanitary Service.

THE HONOURABLE
THE COLONIAL SECRETARY,
VICTORIABORG, ACCRA.

REPORT OF THE COMMITTEE APPOINTED BY THE
SECRETARY OF STATE TO DRAW UP A SCHEME
FOR THE ESTABLISHMENT OF A WEST
AFRICAN MEDICAL SCHOOL.

INTRODUCTION.

The establishment of a Medical School in British West Africa has been contemplated for many years. It has been stated that at the beginning of the century the late Sir William MacGregor, Governor of Lagos, was responsible for first advocating the desirability of such a scheme. Since that date, the subject has been under consideration from time to time and in 1921 Dr. J. M. O'Brien, Senior Medical Officer, visited Dakar and submitted a report on the School of Medicine there, on the lines of which it was suggested that a School of Medicine should be established in British West Africa. The formulation of a detailed scheme was, however, at that time considered to be premature, as the facilities for general education up to the required standard were lacking.

2. Latterly, however, it has been considered that the advance in secondary education which is in progress throughout British West Africa justifies a more thorough investigation into the possibilities and probabilities of the attainment of the long deferred intention of Government to establish a school of medicine.

3. In December of 1925, at the Third Conference of the Senior Members of the West African Medical Staff the subject was fully considered, and a scheme for the training of medical students and medical assistants was outlined. The report of the proceedings of this conference together with certain correspondence relating to the training of medical students and medical assistants is printed as Appendix I to this paper.

APPOINTMENT OF THE COMMITTEE.

4. In due course the Secretary of State approved of the formation of a Committee to consider the furtherance of medical education and the extension of medical service in British West Africa with specific terms of reference.

THE COMMITTEE.

5. As an outcome the Committee was constituted by the *Gold Coast Gazette* (Extraordinary) No. 130 of 1927, dated the 9th of November, 1927, with the following members:—

Dr. W. J. D. Inness	..	Director of Medical and Sanitary Service, Gold Coast (<i>Chairman</i>).
Dr. D. Alexander, C.M.G.	..	Director of Medical and Sanitary Service, Nigeria.
Dr. J. C. S. McDouall	..	Director of Medical and Sanitary Service, Sierra Leone.
Dr. T. B. Adam	..	Deputy Director of Medical and Sanitary Service, Nigeria.
Dr. G. H. Macalister	..	Principal of the Medical College, Singapore.
The Rev. A. G. Fraser	..	Principal of the Prince of Wales College, Achimota.
W. T. Harragin, Esquire	..	Secretary.

TERMS OF REFERENCE.

6. The Terms of Reference were :—

- (1) To draw up a scheme for establishing in the Gold Coast a medical school, whose diploma will be admitted to recognition in the four British Colonies in West Africa.
- (2) To advise as to the standard of education required of entrants to the school.
- (3) To prepare conditions under which partial training will be recognised as qualifying students for appointments as medical assistants.
- (4) To make recommendations regarding the staff required and their salaries and the buildings which will be needed.
- (5) To submit estimates of the capital cost and annual expenditure required to give effect to their proposals.
- (6) To advise when there is likely to be a sufficient number of suitably educated Africans to warrant the establishment of a medical school capable of giving a registrable qualification in medicine and surgery.

INAUGURATION.

7. The Committee met at Accra on Thursday, November 10th, at 11.30 a.m. The members were received at Government House by His Excellency the Governor.

8. His Excellency welcomed the members and, in constituting the Committee and inaugurating its proceedings, recapitulated the Terms of Reference and summarised the salient points of the reports and correspondence antecedent to its appointment. He drew the attention of the Committee to the sixth term of reference inserted by him with the consent of the Secretary of State. His Excellency laid emphasis upon the heavy responsibility placed upon the Committee as a whole and upon each individual member thereof.

He hoped that the Committee would have a successful sitting, and assured it that due consideration would be given to its recommendations.

9. At the close of His Excellency's speech the Committee adjourned.

MEETINGS OF THE COMMITTEE.

10. Sittings were resumed at two o'clock in the afternoon in the office of the Director of Medical and Sanitary Services and the Committee remained in session daily until the termination of its deliberations.

GENERAL.

11. Before proceeding to a categorical consideration of the detailed agenda defined by the Terms of Reference certain general matters were discussed.

12. Communications regarding the desirability of founding a Medical School at Accra had been received from the following :—

Dr. H. O'Hara May,	Deputy Director of Sanitary Service, Gold Coast.
Dr. A. J. R. O'Brien,	Surgical Specialist, Gold Coast.
Dr. W. A. Young,	Director of Medical Research Institute, Gold Coast.
Dr. E. M. Franklin,	Senior Medical Officer, Gold Coast.

These papers were read to the Committee by the Chairman and laid on the table. They are printed in Appendix II of this report.

PRELIMINARY CONSIDERATION.

13. In the mind of this Committee there is not the slightest doubt that the time is ripe for the creation of a full-course medical school in West Africa which shall attain to the standard required for eventual recognition by the General Medical Council.

14. It is understood that such a school of medicine is greatly desired by responsible African opinion. But not only so, the desirability of it and even the necessity for it have been felt for a considerable time by those responsible for the medical work of British West Africa.

15. In this connection the Committee desire to draw attention to the views expressed in Agendum 1 of the Third Conference of the Senior Members of the West African Medical Staff:—

“(iii) Training in Africa, with students in hostels under suitable house masters, makes it possible for character training to go on *pari passu* with the study course. This character training is an absolute essential to reliable service when study is completed. In Great Britain, African students are brought into contact with the conditions which they are wholly unprepared to meet.

“(iv) The training of Africans in wards and in maternity work in Great Britain is not a fair proposition. There is constant difficulty in letting them have adequate clinical work, owing to differences which are entirely racial. On the other hand, training in Africa has the advantage that the clinical teaching is on the diseases amongst their own people, and under the conditions which they will subsequently deal with as practitioners.”

16. In regard to the openings for locally trained doctors there can be no two opinions. The graduates of a local medical school need fear no want of work. It is of course not proposed that all the graduates of such a school should be absorbed into Government service but rather is it emphasised that the majority should launch out for themselves into private practice.

FEASIBILITY OF COMBINED TRAINING.

17. The Committee then proceeded to discuss the general question of the desirability and feasibility of providing in one Institution two separate courses of training, namely, a course for the complete professional education of medical practitioners and one for the training of medical assistants for the purpose of forming an Auxiliary Medical Service. Priority was given to the consideration of this question as it appeared to the Committee that it involved a fundamental point of policy, requiring very careful and thorough investigation, and that the interpretation of the precise scope of the terms of reference must rest logically upon the determination of this crucial point.

18. The Committee considered the terms of reference in conjunction with the following paragraph from the Secretary of State's confidential despatch of 8th August, 1927:—

“7. Under these terms of reference the Committee will be required to consider the question of the training of medical assistants. Such training will no doubt consist, generally speaking, of the earlier stages of the ordinary medical curriculum, which is taken by all students who study for complete medical qualifications, and can therefore be naturally and conveniently given at the medical school in conjunction with the complete diploma course.”

19. These proposals differ from those originally submitted in the recommendations of the Third Conference of Senior Members of the West African Medical Staff inasmuch as they require the initial institution of a complete medical school in which may be incorporated the scheme for training medical assistants, whereas the proposals embodied in the recommendations of the Third Conference contemplated concentrating first on the production of medical assistants, whose first three years' training should be identical with that of full course students, with a subsequent development of the school into a college for giving full training and a registrable qualification.

20. The Committee are advised that attempts to combine two standards of instruction in a single institution have proved impracticable at Madras, Singapore, and other colleges. In this connection may be quoted an extract from Sir Norman Walter's report on medical education in India contained in the minutes of the Executive Committee of the General Medical Council of June, 1927, Appendix 15, page 25 :—

“ I may mention the fact that we found candidates for the M.B., B.S. and the L.M.S.,—a lower grade of qualification given by (Madras) University,—being taught in the same classes and undergoing the same examinations, the only difference being that a 50% standard was required in the case of the one and 33% in the other. Such a course of instruction and examination cannot be efficient or reliable. It is satisfactory to know that this has been recognised by Madras, and the L.M.S. will cease to be conferred when the present students have finished their course.”

21. The examinations for entrance and registration of medical students demand a higher standard of education than is actually necessary for candidates for the Auxiliary Medical Service and it would undoubtedly restrict the supply of candidates for the latter if the same standard were required of both grades.

22. The curriculum for the full-course medical students is precisely laid down by the General Medical Council to determine the scope and standard of attainment required in every subject and at every stage of the course. The Secretary of State's despatch referred to above imposes on the Committee the obligation of ensuring that this standard be adhered to in letter and in spirit and that no departure therefrom be permitted. This requires that the medical student shall receive in the first place a secondary education of high quality, and further that he shall be given a general scientific training of university standard. That is to say, he must receive from specialist teachers not merely a limited training in chemistry, physics and biology, restricted and polarised by considerations of subsequent utilitarian application, but rather a thorough general scientific education of wide cultural basis, conceived to impart the philosophic mental endowment which alone is adequate to equip a medical student for the status he will subsequently be granted. Further, in the basic sciences of anatomy, physiology and pathology, it is only necessary to give the medical assistant a careful grounding in essentials, whereas the full-course student requires a comprehensive grasp of these subjects, on which to build a superstructure of medical knowledge of high standard. The specialist teachers who have the responsibility of providing such teaching for the full-course students, both in the general sciences and in the basic sciences of medicine, should have their whole time devoted to this study, and could not, without loss of efficiency, conduct a parallel course of lower standard.

23. If the original proposals were carried out the course for medical assistants would extend over five years as against six years for the full course ; and considering the purpose for which they are being trained

they would receive instruction in the preliminary subjects entirely disproportionate to that given in the essential clinical subjects. The courses of instruction are not divergent merely in the later years, but the syllabus for each would have to be constructed throughout on an entirely separate basis and with a different scope, and would therefore involve special difficulties in conducting the two courses in one institution.

24. Moreover, the number of beds available for clinical teaching at any one hospital is limited and, as the course of clinical instruction for the two classes is obviously different throughout, this would render their training at the same hospital unworkable. As the prime necessity for a medical training is sufficiency of clinical material this objection to the combination of the two courses is fundamental.

25. If students taking a full medical course study together with those aiming only at a lower standard, friction and disciplinary difficulties are inevitable. This has often been encountered in actual experience in Eastern schools. Moreover, if the school for medical assistants in the Gold Coast is established at Accra as a mere appendage to the College of Medicine for full-course students, it is considered probable, if not certain, that such medical assistants would start their career with an implanted sense of inferiority, and would, owing to the preoccupation of their instructors with the senior grade of students and to the limitation of their access to clinical material, not enjoy the same opportunities for adequate development as their fellow students at institutions created specially "ad hoc" in the other Colonies.

26. In their original proposal the third Conference contemplated the possibility of a medical assistant returning to resume his studies at the third year and to proceed to a registrable qualification. As has been shown this will not be practicable. It will, of course, always be open to ambitious medical assistants to qualify later for the higher service by entering the Medical College for the full course after matriculation and taking the registration and other examinations. This has not infrequently been accomplished in similar circumstances elsewhere. But it would be impracticable as well as inadvisable to frame a curriculum for the candidates for the Auxiliary Medical Service in such manner as to provide any possibility of a short cut to promotion and the attainment of the status of a fully qualified practitioner. Such a policy would involve an undue sacrifice of the interests of the community to the chance ambitions of the individual.

27. Medical assistants should cultivate a fine "esprit de corps" in their own most useful and honourable service. Their position may be compared with that of non-commissioned officers in the Army, whilst exceptional men may receive commissions, it is clear that for the good of the Army as a whole, it is essential that the non-commissioned officer should be proud of his rank and find his normal and reasonable ambition satisfied within its limits. A combined training would make it almost impossible to create this very desirable spirit.

28. For these reasons, this Committee has arrived at the conclusion that the training of medical practitioners and medical assistants at the same institution is impracticable, and that separate schools for the training of the latter must be provided. In face of the fuller information now placed at their disposal, those members of the Third Conference who are sitting on this Committee have decided to discard their former recommendations as being no longer tenable.

29. The Committee now desire to emphasise that the training of medical assistants should not be considered of less importance than that for a registrable qualification. On the contrary, they are convinced

that, for the rapid extension of medical service to the community, the provision of an Auxiliary Medical Staff is a more immediate necessity than that of fully qualified practitioners.

30. Candidates suitable for the Auxiliary Service are not only likely to be available in greater numbers than full-course students and not only can they, after training, more widely and at more reasonable cost be distributed throughout the Country, but they will live in closer touch with the people and thus have unrivalled advantages in inculcating among them a recognition of the benefits to be derived from modern medicine and sanitation. Further, they will be allocated to the different districts of the Colony in proportion to the medical needs of the community.

31. In the despatch from the Secretary of State referred to above the following statement appears:—

“I desire to make it clear that there is no intention that the training of medical assistants as distinct from qualified medical practitioners, should be undertaken in the Gold Coast alone; there is a crying need for African medical assistants in all the West African Colonies, and while it will always be open to any Colonial Government to send students to the Gold Coast for training, the difficulties in the way of obtaining candidates in the other Colonies who are able and willing to be trained for appointments as medical assistants, will be largely increased if no facilities for local instruction are provided. I have accordingly recently approved a proposal made by the Governor of Nigeria that a school for the training of medical assistants should be established in the Northern Provinces of Nigeria, and I shall be ready to consider any further schemes of a similar kind whether in Nigeria or elsewhere.”

With this the Committee are in full agreement. In the foregoing paragraphs they have demonstrated that combined courses for full-course students and medical assistants are impracticable; they have laid stress on the great value of the role to be played by the Auxiliary Medical Service as an integral part of the machinery for securing the better health of the community; they have indicated that it is a prime necessity for the adequate training of medical assistants that they should have unrestricted access to a sufficiency of clinical material; and they are convinced of the importance of such students learning and working amongst the people of their own country.

For these reasons they are in full concord with the proposal that the training of medical assistants in West Africa cannot be centralised, but that separate schools must be established in the various Colonies. They consider that the need for medical assistants is urgent, and that steps to initiate such schools should be undertaken without delay.

PROCEDURE OF THE COMMITTEE.

32. The Committee then considered the Terms of Reference in the most convenient order. In the first place they dealt exclusively with the scheme for the establishment of a medical school for the complete training of African medical practitioners.

TERM OF REFERENCE (2).

“To advise as to the standard of education required of entrants to the school.”

STANDARD OF EDUCATION.

33. It was decided that every student desiring to enter on a full course of medical training must pass a qualifying examination in general education which would be accepted for *matriculation* or entrance to the Faculties of Arts or Pure Science in any University in the United Kingdom.

It was recognised that in West Africa this would usually be done through the Cambridge Senior Local, the candidates passing in the subjects and standard necessary for carrying exemption from the Matriculation of London University.

SCIENCE STANDARD.

34. The above standard of entrance does not make any provision or stipulation requiring a preliminary knowledge of elementary science, although it is very desirable that a student entering upon the study of medicine should be so equipped. It is true that this is not provided for in the entrance examination of the medical schools in the United Kingdom, but there it is the almost invariable practice for those intending to take up the study of medicine to take science subjects at school.

TEACHING OF SCIENCE.

35. In order to stimulate the teaching of Science in the Secondary Schools of the Colonies, and to encourage intending candidates for entrance to the West African College of Medicine to acquire this knowledge the Committee recommend that, in selecting candidates for vacancies in the College from among those who have passed the necessary entrance examination, preference should be given to those who had presented science subjects. Due prominence should be given to this principle of selection in the College calendar and the attention of the educational authority in each Colony drawn to it.

THE PRE-MEDICAL YEAR.

36. It is customary in England for medical students to take their pre-medical year in science subjects before entering a medical school as medical students. Discussion took place as to whether this could be made to apply to the scheme under consideration and thus save the establishment of a Science School in the College of Medicine. Mr. Fraser stated that within four years the pupils at Achimota will have acquired a satisfactory knowledge of elementary science up to the matriculation standard, but not, however, to the intermediate (pre-medical) standard for which his laboratories have not the necessary equipment. He understood the subject was being taught to the same level at King's College in Nigeria and in secondary schools in Sierra Leone.

THE PRE-MEDICAL YEAR WITHIN THE COLLEGE.

37. The Committee believe that the pre-medical year should be taken within the Medical College. The factors which influenced them in this decision are as follows:—

To begin with the science teaching must be predominantly practical for all medical students. There is no guaranteeing this at all the preparatory schools, some of which may be handicapped by poor laboratories.

Secondly, it will cost less in the end to have one common training at the Medical College than to induce the various secondary schools to train to a science standard which must be about that of the London Intermediate Examination and which is considerably higher than the school-leaving examinations.

Again it will be of the greatest value in building up a strong "esprit de corps," not only in the College but in the profession, to have the students together for as long as possible.

THE PRE-MEDICAL YEAR AT ACHIMOTA.

38. There would be the possible alternative of sending all students for the pre-medical year to Achimota. This would, however, not meet the last reason of the Committee for desiring to have the pre-medical

year in the Medical College. Moreover, the Principal of Achimota College believes that it would be detrimental to his College if he had to take all the pre-medical work. He would then have to admit a number of senior students from outside the school and from other colonies who would know nothing of his College and its discipline and of whom he knew little, who yet by reason of their seniority would have an undue and possibly disturbing influence in his school. Coming as freshmen to the Medical College and being juniors there, this disadvantage would not be experienced.

QUALIFICATIONS FOR ENTRANCE TO THE PRE-MEDICAL COURSE.

39. It was therefore agreed that the pre-medical course in science subjects should be taken at the College of Medicine, and that the following should be the requirements for candidates for admission to this course :—

- (a) that they have attained the age of 17 years ;
- (b) that they have passed an examination in general education which is accepted for matriculation or entrance to the Faculties of Arts or Pure Science in any University in the United Kingdom ;
- (c) that they are of good character ;
- (d) that they are physically fit.

40. Of these requirements the first three are strictly in accordance with the standard laid down by the General Medical Council. As regards the fourth it is hardly necessary to enlarge upon the absolute necessity of ensuring that students shall be physically fit before entering upon an arduous course of training for an exacting profession, but it is the experience of medical school authorities in other tropical countries that unless this is secured the result is a very great wastage involving often economic disaster and permanent loss of health to the individual and impaired efficiency to the Institution.

TERM OF REFERENCE (6).

“ To advise when there is likely to be a sufficient number of suitably educated Africans to warrant the establishment of a Medical School capable of giving a registrable qualification in Medicine and Surgery.”

INTERPRETATION.

41. This Term of Reference raises a point of crucial importance, and places upon the Committee a very heavy responsibility. A direct question is put to them ; and their answer to this question in the affirmative or the negative will probably influence the decision as to whether the institution of a Medical College in West Africa is to be regarded as a matter of urgency or whether, in view of the great initial and annual cost of such a foundation it is permissible or desirable to defer its establishment.

42. The Committee are, however, not directly concerned with the economic question. They are responsible for an interpretation of the data at their disposal regarding the standard of education required and that actually attained or shortly to be attained by local students. It comes also within the scope of this term of reference to review other relevant considerations.

EDUCATIONAL STANDARDS.

43. The question of educational standard is more complex than appears at first sight. In order to simplify its analysis, the matter may be discussed under two heads. First, the number of students likely to

attain matriculation standard may be estimated. Secondly, an attempt may be made to calculate the proportion of such students who have the necessary mental equipment and ambition to carry on their studies to the professional standard, embarking upon and completing the course of study for a medical qualification.

MATRICULATION REQUIREMENTS.

44. The first question is the more easily answered. The matriculation requirements have been precisely defined in the foregoing section of the report. The standard of secondary education accepted as necessary to qualify a candidate for admission to any of the learned professions is, broadly speaking, uniform. In medicine, this standard is equivalent to that of the Cambridge School leaving examination, with credit passes in specified subjects. There are already in West Africa centres for holding this examination and the Committee understand that some 30 candidates are successful every year.

FUTURE SUPPLY OF CANDIDATES.

45. Further, regarding the future supply of candidates the Principal of Achimota College, as has previously been stated, considers that in four years' time Achimota, King's College, etc., will be producing students suitably qualified for entry into the pre-medical course of the College of Medicine.

PRELIMINARY INFERENCE.

46. The Committee therefore are led to the conclusion that there is at present a sufficient number of Africans who have attained the standard necessary for matriculation, and that this number is likely to show a material increase in the course of the next few years.

AFRICAN STUDENTS IN BRITAIN.

47. The second heading is less simple in that it concerns not only the ambition but also the mental capacity of those available for admission to the College. Already, a number of students have gone from this country to undertake Medical studies in Great Britain. At present these are no more than a handful, but these must be regarded as the pioneers. They have had the ambition and enterprise to undertake a prolonged sojourn in a strange country and climate in order to obtain their qualifications. It is obvious, moreover, that such ambitions are attainable only by those few individuals who can command the material resources necessary to equip them for such an enterprise. It is estimated that there are at present approximately fifty West African students attending Medical Schools in the United Kingdom, and that every year about twelve such students go to the United Kingdom for this purpose. It should be mentioned also, that students have gone overseas from West Africa to undertake studies other than medical; that the law, for instance, has attracted a much larger number.

COST OF MEDICAL EDUCATION IN THE UNITED KINGDOM.

48. Reference has been made above to the fact that the cost of medical education restricts arbitrarily the ambition of students who might otherwise undertake the journey overseas to pursue their medical studies in Britain. In the educational number of the British Medical Journal of the 3rd of September, 1927, on page 381 under the heading "Cost of Medical Education," it is stated that the minimum sum which the parent or guardian must be prepared to lay out for the six years course is £1,500. This is £250 per annum. The average cost as stated by African families who have sent their sons to the United Kingdom

for medical education is £350 per annum. The Committee believe that the cost to the *African student* at the College of Medicine in West Africa need not exceed £130 *per annum*. For particulars see Appendix III.

It is therefore the view of the Committee that the establishment of a College in West Africa would open the portals of the medical profession to a number of students who are prevented by stress of material circumstances from fulfilling the bent of their ambitions.

49. Colleges for medical study have been established in India for over a century. The dates of foundation of the medical colleges of Ceylon, Hong Kong and Singapore are 1870, 1894 and 1905 respectively. In the instances of the Indian Colleges, there is reason to believe that these institutions came into being prematurely, before the country was, in an educational sense, ready. To this cause may be attributed difficulties of organisation that still hamper the efficiency of these Colleges. The Singapore College was created in response to a petition from the Chinese community in that city. At the time of its establishment, there were considerable doubts as to whether the Colony was sufficiently mature, educationally, to justify the wisdom of the step; but subsequent events have vindicated the judgment of the founders. It has been stated that the scheme for creating a College in West Africa has been contemplated for more than a quarter of a century, and although public demand for such an institution has not yet been specifically voiced, there is little doubt that it would be welcomed as the response to an unspoken desire. It is to be anticipated, moreover, that the existence of a centre for specialised higher education would react beneficially as a stimulus to the elevation of the general standard of secondary education throughout the West African Colonies.

50. In all the circumstances therefore the Committee, while maintaining that an initial entry of ten students would justify the beginning of a College, consider that there is a greater number of suitably qualified candidates available at present and that in the future the number will far exceed the possible accommodation. The Committee therefore agree that the establishment of a medical school capable of giving a registrable qualification in Medicine and Surgery is indubitably warranted.

TERM OF REFERENCE (1).

“To draw up a scheme for establishing in the Gold Coast a medical school, whose diploma will be admitted to recognition in the four British Colonies in West Africa.”

PATRONAGE.

51. In the first place the Committee venture to suggest that His Excellency the Governor be approached with a view to seeking that His Majesty the King consent to become the Patron of the College and, should His Majesty graciously so consent, to the College being styled “The Royal Medical College of West Africa.”

VICE-PATRONS.

52. The Committee further suggest that the Governors of British West Africa be asked to accept nomination as Vice-Patrons.

THE COUNCIL.

53. The governing body of the College shall be under the control of a council which shall be composed as follows:—

President :

The Director of Medical and Sanitary Services of the Gold Coast.

Vice-President :

The Colonial Secretary.

Members :

The Treasurer.

The Secretary for Native Affairs.

The Dean of the College and Medical Superintendent of the Hospital.

The Principal of the Prince of Wales College, Achimota.

The Deputy Director of Sanitary Service.

One official member nominated by the Governor of Nigeria.

One official member nominated by the Governor of Sierra Leone.

Two unofficial members nominated by the Governor of the Gold Coast

One unofficial member nominated by the Governor of Nigeria.

One unofficial member nominated by the Governor of Sierra Leone.

The Secretary and Bursar of the College shall be the Secretary to the Council.

THE EXECUTIVE COMMITTEE.

54. The general management and direction of the College shall be under the Dean assisted by an Executive Committee and subject to the control of the Council.

The following shall be the members of the Executive Committee :—

The Dean of the College.

The Secretary and Bursar of the College.

The Senior Lecturers of the College.

LEGAL PROVISION.

55. The Committee proceeded to draft an Ordinance together with rules in interpretation thereof defining the functions of the College and the duties and responsibilities of the Governing Body, and providing for the internal administration. The Ordinance was based mainly on the Singapore Ordinance No. 224 (King Edward VII College of Medicine) but was modified to meet local requirements. The Ordinance and the rules, after preliminary drafting, were submitted to the Law Officers and revised in consultation with them.

THE GENERAL SCHEME.

56. The Ordinance and the rules framed under its authority are printed in Appendix III. It will be found that these convey a fairly complete description of the arrangements proposed for the management of the school and of the conduct thereof of courses of instruction and examinations. It is considered unnecessary here to recapitulate the details therein contained. The following paragraphs of the report will therefore contain a general outline of the scheme together with such amplification in explanation of details as the Committee consider it necessary to insert.

SITE OF THE COLLEGE.

57. A Medical College must be so placed that its students have convenient and unrestricted access to the wards of a hospital, where instruction is given and clinical experience gained. For the College at Accra, these facilities will be provided by the Gold Coast Hospital, and it is fortunate that there is a large piece of land available west of the present hospital buildings. This area has already been provisionally allocated for the proposed College.

There is ample space available for College buildings, residential hostels, recreation grounds and staff bungalows. It is appropriate here to mention that the Committee regard it as essential that all students should reside at the College. This must be regarded as an indispensable part of their professional training.

RELATION OF THE COLLEGE TO THE MEDICAL DEPARTMENT AND TO THE HOSPITAL.

58. Information was placed before the Committee which emphasised the importance, for the purpose of securing smooth working and avoiding administrative difficulties, of defining precisely the position of the College, its staff and its students, in regard to the Medical Department generally and to the Gold Coast Hospital in particular.

59. It was realised that such a College if created as an excrescence upon or an appendage to a completely organised department would suffer a loss of efficiency owing to ambiguities of control and procedure, which need not here be elaborated.

60. The Committee therefore regard it as a matter of fundamental importance that the College must be completely absorbed in the Medical Department, and that the medical officers on the teaching staff must be placed in their due grade of seniority in the list of the West African Medical Staff. Non-professional officers on the College staff, as well as subordinate personnel, will also come on to the Medical Establishment.

61. The Committee gave very careful consideration to the important question of administrative relations between the College and the Hospital. After a discussion of various possible schemes of control it was agreed that in order to secure the maximum of efficiency it would be necessary to combine the two institutions into a single administrative unit under the direct management of one responsible officer, and to place this officer directly under the authority of the Director of Medical and Sanitary Services.

62. This is not the system of management that has been adopted in all schools of medicine. Experiments in alternative methods of control have actually been made in other medical schools in Asia and other continents. In some places, the College and Hospital are independently controlled by two, even three, separate officers who stand towards one another in no mutual relation of superiority or subordination; elsewhere one officer may be the senior, but may be restricted as far as concerns the exercise of direct control to the limits of his own branch of the department.

63. The result of such experiment shows that divided control may render satisfactory working extremely difficult or even impossible. Of handicaps to efficiency that follow such a system, the following may be mentioned :—

- (1) Conflict of personalities. In a perfect community, such antagonisms do not occur; but it is necessary for the sake of completeness to mention the possibility.
- (2) Some members of the staff will have duties both in the College and in the Hospital, and may thus come under the control of two officers. Wittingly or unwittingly, they may be given conflicting orders. Even if so unfortunate a contingency do not arise, such officers will find difficulty in keeping a correct balance between their College and their Hospital duties.
- (3) The officer in charge of the College is responsible for the discipline of the students. In order to discharge this duty, he must have

unrestricted access to any place where the students may be at work. Medical students, moreover, require training in a specialised form of discipline—that which governs their behaviour in the presence of the sick.

The medical student in Britain acquires such knowledge almost unconsciously while he absorbs the traditions of his school. Here, there will be no force of tradition for the guidance of the student. For efficient control of the students, the officer in charge of the College must therefore have access to, and unquestioned authority in, the Hospital.

- (4) Senior students, as part of their training, will be given certain duties in the Hospital. They have also to attend certain classes at the College.

The paramount consideration in any Hospital or other medical institution is axiomatically the welfare of the sick. It may be necessary to summon a student from College to Hospital or from Hospital to College. Where the two institutions are under separate officers, a spirit of courteous co-operation may and generally does prevail. But even though such courtesy may lubricate the wheels of administration, it is impossible to secure as easy working as that which results from the integration of the two elements into a single unit.

64. The Committee therefore consider that the Medical College at Accra and the Gold Coast Hospital should be combined into a single administrative unit under the control of one officer who may be styled the Dean of the College and the Medical Superintendent of the Hospital. The reasons which guided them to this decision have been quoted "in extenso" because in their judgment the point is one of great importance. The Committee realise that the provision of a complete course of medical education of high standard in a country which is still young in an educational sense must present problems of no small difficulty. On the other hand, it is regarded as an asset of no small value, that the College is being constructed "de novo" and that its organisation can be plotted upon a clean sheet. The Committee have therefore endeavoured to avail themselves of this advantage and to utilise as far as possible the information placed at their disposal regarding the successes and failures of various experiments in administrative detail in other countries.

THE DEAN.

65. In recommending that the combined positions of Dean and Medical Superintendent should be entrusted to a single officer, the Committee realise that much will depend upon the personality of the officer selected.

In addition to such obvious qualities as tact and administrative capacity, he must possess the power of keeping discipline and must also have a sympathetic understanding of the disposition and difficulties of the African student.

In order to keep in touch with these it will not be sufficient for him merely to fill the position of general director of studies. He must come directly into contact with the students in the capacity of lecturer and teacher. His administrative duties will occupy the greater part of his time and energies and will not permit him to accept sole responsibility for instruction in a major subject; but it would be possible for him to participate, for example, in the lectures in medicine, forensic medicine, medical ethics or some similar subject.

66. Other things being equal, the Committee hope that it may be possible to obtain this officer from among the ranks of the existing West African Medical Staff. A man recruited direct from home might possess good degrees and high professional standing, but it would be difficult to ensure that he possessed the other more important personal qualities.

THE TEACHING STAFF.

67. Under the appropriate Term of Reference there is given a detailed list of the lecturers, demonstrators and unqualified assistants required. To this is attached the recommendations of the Committee regarding scales of remuneration.

68. It will be seen that for the teaching of each subject an adequate personnel is provided. The Committee wish to emphasise that it is a very dangerous fallacy to assume that a teaching college can be adequately and efficiently staffed by the appointment of teachers alone. A single-handed officer, unsupported by a sufficient team of skilled assistants and subordinates, is intolerably handicapped in the theoretical and practical teaching of his subject. His time would be largely occupied by mechanical routine work in the preparation of material and so on, and he would have little leisure or opportunity for keeping his knowledge abreast of the development of his science or for conducting original research. As a result he might possibly subside into stagnation and sterility and lose all power of inspiration as a teacher.

69. The efficiency of the teaching strength should be greatly enhanced by the coalescence of the College and the Hospital into a single administrative unit and by securing the harmonious co-operation of the staff of the Medical Research Institute. The lecturers in the subjects of the first three years will, naturally, find their primary duties lie in the lecture rooms and laboratories of the College, although their expert services will doubtless be at the disposal of the Hospital and the Research Institute, when occasion arises. For the provision of lecturers, demonstrators and tutors in the subjects of the last three years of study, it is contemplated that there will be a careful system of dovetailing and co-ordination between the three institutions. The medical staff of the hospital will be augmented, and the members of the staff will derive benefit from the stimulus of their teaching duties. The lecturers in pathology and bacteriology will carry out their duties under the general direction of the Director of Medical Research Institute, and will be at the disposal of the latter for co-operation in collective investigations and research.

TEACHING OF PREVENTIVE MEDICINE.

70. The most recent publications and reports upon the subject of medical education lay great stress upon the preventive aspects of medicine. It is enjoined upon directors of medical studies, that the importance of the prevention of disease should be impressed upon students throughout the whole course and that this spirit should permeate and dominate the courses of instruction in every subject.

The Committee realise the value of this principle and hold moreover that the general subjects of hygiene and public health and their special applications to the other portions of the curriculum are, if possible, relatively of far greater importance in tropical than in temperate countries. They do not however regard it as feasible or even desirable that a whole-time lectureship on hygiene and public health shall be created. A lecturer on hygiene who is not an officer in the Sanitary Service, and therefore is not an integral unit in the administrative machinery of the maintenance of the public health, would thereby be debarred from access to the practical side of his subject. He would only be able to give a

course of lectures in the theoretical aspect of his subject, illustrated perhaps by a few laboratory or museum demonstrations. He would not, except by grace of the public health authorities, have access to field work or to the demonstration of the public health services of the district. Such a position would be untenable and would be entirely unacceptable to an officer of any standing or self-respect. It is therefore recommended that for the instruction in this subject, second to none in importance, the assistance of the Deputy Director of Sanitary Service and his staff shall be secured.

71. In the building scheme, which is given in detail under Term of Reference 4, provision is made for the progressive erection of hostels, which will ultimately contain accommodation for a hundred and eighty students. The Committee regard it as essential for the establishment of a corporate spirit and the creation of a sound tradition among the students of loyalty to one another and to their profession, that they shall all reside in the hostels throughout their course. For the general maintenance of order and the supervision of the students in these hostels it will be necessary to detail one or more members of the teaching staff to undertake the duties of warden: for undertaking these duties a small additional allowance should be granted. Satisfactory arrangements for catering will be required.

RECREATION.

72. Ample space should be provided for recreation grounds, and it will be necessary to make sure that all students make the fullest possible use of the facilities for outdoor games. Lectures, laboratory work and hospital practice will absorb the entire energies of the students daily between the hours of 8 a.m. and 12 noon and again between 2 and 4 o'clock in the afternoon. If a student is to keep physically fit during his arduous course of study, he must take exercise during the hours of daylight that remain after four o'clock in the afternoon. After the evening meal, students will have opportunity for private study. Lights should be out at 10.30 every evening, though as a concession an extension until midnight may be granted during three or four weeks immediately preceding the professional examinations.

73. This point may appear to be a matter of trivial detail but it is nevertheless one of importance.

Amongst students in tropical countries there is a great tendency to overwork and to the neglect of physical fitness. This has been found in other countries, in many regrettable instances, to lead to serious permanent breakdown, both mental and physical.

PHYSICAL DRILL.

74. Further, no reading should be permitted in the early mornings. Students should parade for physical drill at six o'clock in the morning under the direction of the janitor. It is recommended that he should be a man who has served as a non-commissioned officer in the Army and has therefore had the necessary training to equip him for this duty. At this drill, the janitor should take a roll call, and report immediately to the warden the names of any that may be absent and any that he may notice to be physically unfit. No student should be permitted to attend classes at the College or Hospital unless he is perfectly fit.

FEES.

75. It is suggested that an inclusive fee of one hundred pounds a year should be required from all students, excepting those who may be granted special exemption. This fee covers all charges for tuition, practical classes, board and lodging. It also entitles the student to be supplied with the necessary text books during the first three years of study.

Those required during the concluding years will not be supplied; students will be expected to purchase these, and to retain them after qualification for use in their practice. In addition to the above, it is recommended that there should be small fees for examinations and for diplomas. It is proposed also that students should be required to make deposits to cover damage to instruments and apparatus; such deposits to be returnable in cases where no breakage or injury to equipment is recorded.

COURSES OF INSTRUCTION AND EXAMINATIONS.

76. As regards the general programme of work for the students, it has been laid down that the licentiates of the Accra College shall by virtue of local registration be on precisely the same footing and enjoy the same privileges as a medical man who has qualified in Britain. This postulates that the curriculum shall follow precisely the recommendations and requirements of the General Council for Medical Education and Registration. In drafting the rules regulating the course of study the Committee have given very careful consideration to the various reports of the General Medical Council and to Sir George Newman's memoranda on the subjects of Medical Education and the Practice of Preventive Medicine.

77. The whole course covers a period of six years. Of these, the first is known as the pre-medical or pre-registration year. During this year, the student acquires a knowledge of the general principles of natural science, attending lectures and classes in chemistry, physics and biology. On the conclusion of this period of study, he sits for an examination in these subjects. If successful, he is required to register as a medical student. He is not permitted to proceed to further studies until this has been accomplished.

78. In the second and third years, the student acquires a knowledge of the normal structure and function of the human body by attending lectures and practical classes in anatomy and physiology. His knowledge of these subjects is tested by examination at the end of the third year, and he is not allowed to proceed to higher studies until he has passed this examination.

79. These two examinations are to be regarded as stringent efficiency bars. It is to be expected that many students will enter for the course who turn out to be temperamentally and intellectually entirely unfitted for the study and practice of medicine. It is obviously essential that these deficiencies should be discovered at an early stage in the course in order that such students should be diverted to a calling more in accordance with their calibre. It is therefore desirable that a high standard should be set in these tests, and that a student who fails, after a reasonable number of attempts, to reach the required level, should be required to leave the College. A judicious severity at this stage of the course will reduce the likelihood of creating a class of "chronics" who would otherwise remain to clog the machinery and hamper the efficient working of the College. Such a group constitutes, moreover, a fertile focus of disaffection, and endangers the good discipline of any College.

80. The last three years of the course are devoted to the study of pathology and bacteriology; medicine, surgery and midwifery in their general and special branches; hygiene and forensic medicine. The lectures, practical classes and clinical duties are so planned that the student will acquire a theoretical and practical grasp of the science and art of his profession. He is entrusted with a series of hospital appointments of responsibility so graded that on completion of his course, when he has passed his final examinations and has received his diploma, he is fitted to enter upon the practice of his profession.

81. Throughout the course students shall be required to give full attendance at the prescribed lectures and classes as scheduled in the rules and regulations contained in the appendix to this report. Test examinations shall be conducted at the end of every term by the several lecturers and no student shall be permitted to sit for the pre-medical and professional examinations unless he can present the necessary certificates of attendance and unless he has attained a satisfactory standard in the test examinations.

TIME TABLES.

82. The following time tables have been drawn up to suggest a suitable arrangement of the various classes :—

FIRST YEAR.

	<i>Monday.</i>	<i>Tuesday.</i>	<i>Wednesday.</i>	<i>Thursday.</i>	<i>Friday.</i>	<i>Saturday.</i>
8-9	Chemistry.	Physics.	Chemistry.	Biology.	Physics.	Biology.
9-11	Practical Chemistry.	Practical Physics.	Practical Chemistry.	Practical Biology.	Practical Physics.	Practical Biology.
11-12	Biology.	Biology.	Physics.	Chemistry.	Chemistry.	(Reading).
2-3	Practical Biology.	Practical Biology.	(Reading).	Practical Chemistry.	Practical Chemistry.	

SECOND YEAR.

1ST TERM.

	<i>Monday.</i>	<i>Tuesday.</i>	<i>Wednesday.</i>	<i>Thursday.</i>	<i>Friday.</i>	<i>Saturday.</i>
8-9	General Physiology.	Organic Chemistry.	General Physiology.	Organic Chemistry.	General Physiology.	Osteology.
9-10	Practical Histology.	Practical Organic Chemistry.	Practical Histology.	Practical Organic Chemistry.	Practical Histology.	Osteology Demonstration.
10-12	Osteology.	(Reading).	Embryology.	Osteology.	(Reading).	
2-3	Practical Osteology.	Practical Osteology.	Embryology Demonstration.	Practical Osteology.	Practical Osteology.	

SECOND YEAR.

SECOND TERM.

	<i>Monday.</i>	<i>Tuesday.</i>	<i>Wednesday.</i>	<i>Thursday.</i>	<i>Friday.</i>	<i>Saturday.</i>
8-9	General Physiology.	Organic Chemistry.	General Physiology.	Organic Chemistry.	General Physiology.	Anatomy.
9-11	Experimental Physiology.	Practical Organic Chemistry.	Experimental Physiology.	Practical Organic Chemistry.	Experimental Physiology.	Anatomy Demonstration
11-12	Anatomy.	(Reading).	Embryology.	Anatomy.	(Reading).	
2-4	Dissection and Demonstration.	Dissection and Demonstration.	Embryology Demonstration.	Dissection.	Dissection.	

SECOND YEAR.

THIRD TERM.

	<i>Monday.</i>	<i>Tuesday.</i>	<i>Wednesday.</i>	<i>Thursday.</i>	<i>Friday.</i>	<i>Saturday.</i>
8-9	Bio-chemistry.	Organic Chemistry.	Bio-chemistry.	Organic Chemistry.	Bio-chemistry.	Anatomy.
9-10	Practical Bio-chemistry.	Practical Organic Chemistry.	Practical Bio-chemistry.	Practical Organic Chemistry.	Practical Bio-chemistry.	Anatomy Demonstration.
10-12	Anatomy.	(Reading).	Embryology.	Anatomy.	(Reading).	
2-4	Dissection and Demonstration.	Dissection and Demonstration.	Embryology Demonstration.	Dissection.	Dissection.	

THIRD YEAR.

FIRST TERM.

	<i>Monday.</i>	<i>Tuesday.</i>	<i>Wednesday.</i>	<i>Thursday.</i>	<i>Friday.</i>	<i>Saturday.</i>
8-9	Embryology.	General Physiology.	Anatomy.	General Physiology.	Anatomy.	General Physiology.
9-10	Practical and Demonstration Embryology.	Practical Advanced Histology.	Demonstration Surface Anatomy.	Practical Advanced Histology.	Demonstration Surface Anatomy.	Practical Advanced Histology.
10-12	(Reading).	Anatomy.	(Reading).	(Reading).	(Reading).	
2-4	Dissection.	Dissection.	(Reading).	Dissection and Demonstration.	Dissection and Demonstration.	

THIRD YEAR.

SECOND TERM.

	<i>Monday.</i>	<i>Tuesday.</i>	<i>Wednesday.</i>	<i>Thursday.</i>	<i>Friday.</i>	<i>Saturday.</i>
8-9	Embryology.	General Physiology.	Anatomy.	General Physiology.	Anatomy.	General Physiology.
9-10	Practical Embryology and Dissection.	Experimental Physiology.	Surface Anatomy Demonstration.	Practical Physiology Instruments.	Surface Anatomy Demonstration.	Practical Physiology Instruments and Human Experiments.
10-12	(Reading).	Anatomy.	(Reading).	(Reading).	(Reading).	
2-4	Dissection.	Dissection.	(Reading).	Dissection and Demonstration.	Dissection and Demonstration.	

THIRD YEAR.

THIRD TERM.

	<i>Monday.</i>	<i>Tuesday.</i>	<i>Wednesday.</i>	<i>Thursday.</i>	<i>Friday.</i>	<i>Saturday.</i>
8-9	Embryology.	Bio-chemistry.	Anatomy.	Bio-chemistry.	Anatomy.	Bio-chemistry.
9-11	Practical Embryology and Demonstration.	Practical Bio-chemistry.	Dissection and Demonstration.	Practical Bio-chemistry.	Surface Anatomy.	Practical Bio-chemistry.
11-12	(Reading).	(Reading).	(Reading).	(Reading).	(Reading).	(Reading).
2-3	Physiology Revision.	Anatomy Revision.	Physiology Revision.	Anatomy Revision.	Physiology Revision.	

FOURTH YEAR.

FIRST TWO TERMS.

	<i>Monday.</i>	<i>Tuesday.</i>	<i>Wednesday.</i>	<i>Thursday.</i>	<i>Friday.</i>	<i>Saturday.</i>
8-10	Elementary Clinics.	Elementary Clinics.	Elementary Clinics.	Elementary Clinics.	Elementary Clinics.	Post-mortem Demonstration
10-12	Pathology and Bacteriology.	Materia Medica, Pharmacy and Dispensing.	Pathology and Bacteriology.	Materia Medica, Pharmacy and Dispensing.	Pathology and Bacteriology.	Pharmacology Practical and Demonstration
2-4	Practical Pathology and Bacteriology.	Medicine Surgery.	Practical Pathology and Bacteriology.	Medicine Surgery.	Practical Pathology and Bacteriology.	

FOURTH YEAR.

THIRD TERM.

	<i>Monday.</i>	<i>Tuesday.</i>	<i>Wednesday.</i>	<i>Thursday.</i>	<i>Friday.</i>	<i>Saturday.</i>
7-30	Hospital and Out-patient Practice	or Post-mortem clerking each day.				
0-11	Pathology and Bacteriology.	Materia Medica, Pharmacology and Dispensing.		Materia Medica, Pharmacology and Dispensing.		Pharmacology.
11-12						Pharmacology by Practical Demonstration.
2-4	Practical Pathology and Bacteriology.	Medicine, Surgery.		Medicine, Surgery.		

FIFTH YEAR.

	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
7-10	Hospital and	Out-patient Practice or	Post-mortem clerking	each day.		
10-12	Midwifery.	Pathology and	Midwifery.	Pathology and	Surgery.	Medicine.
		Bacteriology.		Bacteriology.		
2-4	Medicine.	Practical	Surgery.	Practical	Hygiene.	
		Pathology and		Pathology and		
		Bacteriology.		Bacteriology.		

SIXTH YEAR.

	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
9-10	Infectious Disease.	Hospital and	Out-patient	practice each day.		Venereal Disease Clinics.
10-11	Ophthalmology.	Radiology	Ear, Nose, and	Anaesthetics	Applied	Medical Ethics.
		Demonstration.	Throat	Lecture and	Anatomy	
			Lecture and	Demonstration.	Lecture and	
			Demonstration.		Demonstration.	
11-12	Ophthalmology.	Hygiene	do.	Hygiene.	do.	
2-3	Gynaecology.	Hygiene	Gynaecology.	Hygiene		
		Field work.		Field work.		
3-4	Medical Jurisprudence.		Therapeutics.			

83. It will be noticed that no mention is made of the subject of 'Tropical Medicine,' and that no special provision is made for instruction in the diseases of warmer climates. The Committee consider that it would be just as illogical to isolate this subject in a medical school in the neighbourhood of the equator as it would be to create a separate department of 'Temperate Medicine' in schools situated in higher latitudes. A plan of instruction that separates enteric fever from the dysenterics as fundamentally belonging to entirely different orders of morbid entity, is one that cannot be reconciled with any natural or intelligent system of classification.

GENERAL REQUIREMENTS OF STUDENTS.

84. It will be required of students that they conform with the rules of the College and Hospital; that they will be diligent and industrious; that they pass their various examinations within a reasonable time, that they acquiesce readily in the direction of every superior officer and other authority in the College or Hospital and that they conduct themselves on all occasions in such a manner as fully to uphold the dignity of their profession.

85. The precise drafting of the rules of discipline will be one of the first duties of the Executive Committee when the College comes into being. In this task they will probably be guided by a study of the codes in force elsewhere. It is recommended that they refer particularly to the calendars of the Medical Colleges at Madras, Colombo and Singapore. These publications contain general codes of discipline which have been modified from time to time to meet with fresh contingencies.

TERM OF REFERENCE (4).

"To make recommendations regarding the staff required and their salaries and the buildings which will be needed."

THE ACADEMIC YEAR.

86. The Committee suggest that the academic year begin in the middle of October and end in the middle of June; the European staff whose duties lie wholly in the College proceeding on leave in June and resuming duty in the Colony by the beginning of October in order to prepare for the commencement of the next academic year.

87. This will mean that the staff will do an eight and a half months' tour and have ten weeks' leave in England. If this is not done it will necessitate the provision of additional staff for relief purposes which in the opinion of the Committee will prove not only unsatisfactory from the point of view of teaching but also unnecessarily expensive.

88. The computation of the expenditure on salaries, passages, etc., which are detailed below and in Appendix IV is based on the assumption that the staff will arrive in the Colony in time for each academic year.

A.—STAFF.

FIRST YEAR.

89. The European Staff required for the first year's work together with their proposed salaries is as follows:—

	<i>Salary.</i>
1. The Dean of the College and Medical Superintendent of the Hospital	£1,600. £320 Duty Pay.
2. The Secretary and Bursar	£600-30-720-40- £920+£72 Seniority Allowance.
3. Janitor	£500-12-£560.
4. Matron Housekeeper	£480, £510-30-£600.
5. Lecturer in Chemistry	£660-30-£720-40- £960+£72 Seniority Allowance.
6. Lecturer in Biology	do.
7. Laboratory Technician	£440-12-£500.
8. Lecturer in Anatomy	£1,200-50-£1,400+ £240 Duty Pay.
9. Anatomical Room Attendant	£440-12-£500.

90. It is desirable that the Dean and Secretary should arrive about six months in advance of the opening of the College, which, as has been said above, it is proposed should be in October. At the beginning of September the remainder of the staff required should arrive.

91. The total cost of salaries of the European Staff for the first year will be £5,119. To this should be added six first class steamer passages outwards—£321—and three second class passages—£116. In addition, four outfit allowances at £60 and three at £30 will be payable. Summarised, the total expenditure of the European Staff in the first year will be as follows:—

Salaries	£5,119
Passages	437
Outfit Allowances	345
	£5,901

92. The African Staff required for the first year will be:—

	<i>Salary.</i>
1. First Division Clerk	£222-12-£282.
2. Second Division Clerk	£60-6-£84, £98-8- £138-£154-10-£208.
3. Two Laboratory Attendants	£60-6-£84, £98-8- £138, £154-10-£208.
4. Groundsman	£72.
5. Four Messengers and Cleaners at 1/6 p.d.	£27.

6. Eleven Labourers at 1/6 p.d.	..	£27.
7. Hostel Cook .. .. .	..	£63.
8. Cook's Mate .. .. .	..	£30.
9. Two Pantry boys—one at £48 and one at £42 p.a. .. .. .	..	£90.

93. The total expenditure of the African Staff for the first year will be £901.

SECOND YEAR.

94. For the second year the following additional European Staff will be required :—

	<i>Salary.</i>
10. Lecturer in Physiology	£1,200-50-£1,400. £240-10-£280 Duty. Pay.
11. Physiological Laboratory Attendant ..	£440-12-£500.
12. Biological Laboratory Attendant ..	do.
13. Curator of Scientific Apparatus ..	£540-30-£600.
14. Librarian	£480, £510-30-£600.

95. These officers should arrive in time to prepare for the opening of the second year's course, *i.e.*, at the beginning of September.

The expenditure of the additional European Staff in the second year will be :—

Salaries	£1,949
Passages	223
Outfit Allowances	210
	<hr/> £2,382

To this amount must be added the salaries, increments and passages of the Staff engaged in the first year. Thus the total expenditure on salaries, etc., of the European Staff in the second year is as follows :—

Salaries	£9,205
Passages	1,096
Outfit Allowances	210
	<hr/> £10,511

96. The additional African Staff required in the second year is :—

3. Two Laboratory Attendants	£60-6-£84, £98-8- £138, £154-10-£208.
10. Curator's Assistant	£60-6-£84.
6. One Labourer at 1/6 p.d.	£27.
12. Assistant Cook	£60.
12. One Steward	£48.

97. This Staff will be required at the beginning of the second year, *i.e.* 1st of October. The total expenditure on the salaries, etc. of the African Staff will be £1,305.

THIRD YEAR.

98. The additional European Staff required in the third year is as follows :—

	<i>Salary.</i>
15. Lecturer in Physics	£660-30-£720-40- £960. £72 Seniority Allowance.

16. Assistant Lecturer in Anatomy .. £800-40-£960, £72 Seniority Allowance and £150 Staff Pay.
17. Assistant Lecturer in Physiology .. do.

99. The total expenditure on salaries, etc., of European Staff in the third year will be :—

Salaries	£12,285
Passages	1,479
Outfit Allowances	60
	<hr/>
	£13,824

100. The additional African Staff required in the third year is :—

2. Second Division Clerk £60-6-£84, £98-8-
£138, £154-10-£208.
3. Three Laboratory Attendants £60-6-£84, £98-8-
£138, £154-10-£208.
9. One Pantry boy £42.
12. One Steward £48.
6. One Labourer at 1/6 p.d. £27.

101. The total expenditure on the African Staff in the third year will be £1,682.

FOURTH YEAR.

102. The additional European Staff required for the fourth year is as follows :—

18. Pharmacologist £1,000-50-£1,150
£100 Seniority Allowance. £150. Staff Pay.
19. Dispensing Instructor £500-12-£560.
20. Senior Pathologist £150.
21. Bacteriologist and Pathologist £800-40-£960, £72 Seniority Allowance. £150 Staff Pay.
22. Pathologist £800-40-£960, £72 Seniority Allowance. £150 Staff Pay.
23. One Laboratory Technician £440-12-£500.
24. do. do.
25. Senior Physician £1,300-£1,400. £260-£280 Duty Pay.
26. Senior Surgeon £1,300-£1,400. £260-£280 Duty Pay.
27. Physician £1,000-50-£1,150. £100 Seniority Allowance.
28. Surgeon do.
29. Ophthalmologist £1,300-£1,400. £260-£280 Duty Pay.
30. Obstetrician and Gynæcologist do.

103. The total expenditure on the European Staff for the fourth year will be :—

Salaries	£21,107
Passages	2,198
Outfit Allowances	135
	<hr/>
	£23,440
Less estimated value of Services of Medical and Surgical Staff to the Gold Coast Hospital	2,500
	<hr/>
	£20,940

104. In the fourth year the additional African Staff required will be:—

3. One Laboratory Attendant	£60-6-£84, £98-8- £138, £154-10-£208.
6. One Labourer	£27.
11. One Assistant Cook	£60.
12. One Steward	£48.

105. The total expenditure for the African Staff in the fourth year is £2,020.

FIFTH YEAR.

106. The additional expenditure on salaries, etc., of European Staff in the 5th and 6th years will be in respect of fees paid to Medical Officers on the permanent staff of the Medical Department for lectures given.

107. In the fifth year the lecturers required will be:—

	<i>Fees.</i>
31. Senior Lecturer in Public Health	£150
32. Junior Lecturer in Public Health	£100
33. Lecturer in Skin diseases	£100
34. Lecturer in Venereal diseases	£100
35. Lecturer in Mental and Nervous diseases	£100.

108. For these officers outfit allowances and passages have not been provided since they are officers on the permanent staff of the Medical Department. The estimated expenditure for the fifth year will therefore be:—

Salaries	£28,335
Passages	2,833
Outfit Allowances	—
	<hr/>
	£31,168
Less estimated value of services of Medical and Surgical Staff to the Gold Coast Hospital	2,500
	<hr/>
	£28,668

109. In the fifth year the additional African Staff required is:—

6. One Labourer	£27
12. Two Stewards	£48.

The total expenditure for African Staff is £2,226.

SIXTH YEAR.

110. The following lecturers will be required in the sixth year —

	<i>Fees.</i>
36. Lecturer in Ear, Nose and Throat diseases	£100
37. Lecturer in Infectious diseases	£100
38. Lecturer in Anaesthetics	£100
39. Assistant Lecturer in Materia Medica	£100

111. The expenditure for the year will be:—

Salaries	£29,557
Passages	2,833
	<u>£32,390</u>

Less estimated value of services of
Medical and Surgical Staff to the Gold
Coast Hospital 2,500

£29,890

112. In the sixth year the additional African Staff required will be:—

6. One Labourer £27

12. One Steward £48

113. The total expenditure for the sixth year will be £2,414.

SEVENTH AND SUBSEQUENT YEARS.

114. There will be no further increase in the European Staff after the sixth year. There will be a slight increase in the expenditure on salaries, etc., in the seventh year, but in subsequent years the only increase will be that caused by increments to officers.

115. The total expenditure on salaries, etc., for the seventh year will be:—

Salaries	£30,388
Passages	2,833
	<u>£33,221</u>

Less estimated value of services of
Medical and Surgical Staff to the Gold
Coast Hospital 2,500

£30,721

116. The expenditure on salaries, etc., of the African Staff in the seventh year will be £2,536.

SUMMARY OF EXPENDITURE ON SALARIES, ETC.

117. A summary of the total annual expenditure on salaries, increments, etc., of the European and African Staff is given below for easy reference:—

	1st Year.	2nd Year.	3rd Year.	4th Year.	5th Year.	6th Year.	7th Year.
European ..	£ 5,901	£ 10,511	£ 13,824	£ 20,940	£ 28,668	£ 29,890	£ 30,721
African ..	901	1,305	1,682	2,020	2,226	2,414	2,536
Total ..	£6,802	£11,816	£15,506	£22,960	£30,984	£32,304	£33,257

B.—BUILDINGS.

BUILDING SITE.

118. An area of land 216,124 acres in size adjoining the Gold Coast Hospital was acquired in 1924, in contemplation of the building thereon of a School of Medicine for the Gold Coast.

119. This area the Committee visited in company with the Acting Chief Architect and two other officers of the Public Works Department, and the site as shown on the attached site plan was agreed upon by the Committee as being the most suitable for the proposed Medical College and residential area.

PLANS.

120. Suggested plans of the building of the College and of the accommodation required for the staff and students are attached as Appendix V.

BUILDING PROGRAMME.

121. The building programme is divided into three parts. The first part will consist in the erection of those buildings which will be required at the opening of the College, the second part those buildings which will be required for the second and third years of the course of professional study and the third part the Assembly Hall.

COLLEGE BUILDINGS.

First Part :—

- I. The Administration block. This contains two lecture rooms available for the Final Year.
- II. The Physiological block which includes accommodation for the pre-medical year.

Second Part :—

- III. The Anatomical block.
- IV. The Pathological block.

Third Part :—

- V. The Assembly Hall.

ACCOMMODATION FOR STUDENTS.

122. On the plan in Appendix V is shown the site of the building for the accommodation of the students. It is proposed that this consist of six hostels each capable of accommodating thirty students. Each hostel will contain its own common room.

123. It is suggested that two of the permanent lecturers act as Wardens to supervise these hostels with the assistance of the janitor.

HOSTELS AND QUARTERS.

124. In the first stage the buildings required will be :—

- One hostel
- Dining Hall or Mess
- Kitchen
- Two class A bungalows for Wardens.
- One class B bungalow for Janitor.

125. In each successive year one hostel will be required.

WOMEN STUDENTS.

126. It should be noted here that in the event of women students desiring to enter the College it will be necessary to provide special accommodation. The Committee consider that there is ample room for this to be conveniently done.

ACCOMMODATION FOR EUROPEAN STAFF.

127. Paragraphs 89-117 and Appendix IV give in detail the staff which will be required each year. The housing accommodation necessary for this staff will be as follows :—

First Year.

Four class A bungalows.

Three class B bungalows.

Two Lecturers will occupy the bungalows provided for the Wardens—*vide* paragraph 124 *supra*.

Second Year.

Two class A bungalows.

Three class B bungalows.

Third Year.

Three class A bungalows.

Fourth Year.

Seven class A bungalows.

Three class B bungalows.

128. Accommodation for the Senior Surgeon and Surgeon is already available. As it is proposed that the Senior Pathologist will be an officer on the permanent staff of the Research branch of the Medical Department no extra bungalow will be required for him.

129. In the fifth and subsequent years no additional bungalow accommodation will be necessary.

130. There is at present, on a site adjacent to the Gold Coast Hospital, a village which serves the purpose of providing accommodation for the labourers, etc., attached to that institution. This may be enlarged in order to house the African subordinate personnel of the College.

TERM OF REFERENCE (5).

“ To submit estimates of the capital cost and annual expenditure required to give effect to their proposals.”

131. In the following paragraphs is contained a tabulated estimate of the capital cost of the complete scheme for the proposed Medical College and of the annual recurrent cost of its maintenance.

CAPITAL COST.

132. The capital cost of the College is shown under the following headings :—

- (a) layout, which includes roads, sewerage, water-tower drainage etc.,
- (b) cost of buildings and furniture, and
- (c) cost of scientific equipment.

In accordance with the progressive requirements during the opening years of the College, as the students entering at the beginning progress to the higher years of study, these estimates of capital cost are shown in five annual programmes, the building would probably be undertaken in three stages and the technical equipment will, during the first five years, be purchased as the laboratories are completed and required for use. It will be understood that owing to the architectural amenities it will not be possible to maintain a strict parallel between the building and equipment programmes. Some laboratories will be built and completed a year or possibly more before they are due for occupation. In such a case the purchase of equipment will be deferred until required.

133. Under the headings as stated above the capital cost has been estimated as follows:—

	1	2	3	4	5	Total.
	£	£	£	£	£	£
(a) Layout ..	36,018					36,018
(b) Cost of buildings and furniture ..	116,687	80,149	98,125			294,961
(See paras. 118 130).						
(c) Scientific equipment ..	10,900	13,505	9,500	1,875	435	36,215
						Total £367,194

DETAILED ESTIMATES OF SCIENTIFIC EQUIPMENT.

134. The detailed estimate of the capital cost of the scientific equipment for each department of instruction is as follows:—

1st Year.

	£
Library	600
Office equipment, etc.	400
Museum	500
Physics laboratory	2,600
Chemistry laboratory	2,000
Biology laboratory	2,000
Chemicals, etc.	500
Fitter's workshop	120
	<hr/>
	£8,720
25% freight, etc.	2,180
	<hr/>
	£10,900

2nd Year.

	£
Anatomy laboratory	650
Physiology laboratory	4,880
Bio-chemistry	2,800
Histology laboratory	2,375
Animal House	100
	<hr/>
	10,805
25% freight, etc.	2,700
	<hr/>
	£13,505

3rd Year.

Pathological block	£7,600
25% freight etc.	1,900
	<u>£9,500</u>

4th Year.

Pharmacological section	£1,500
25% freight etc.	375
	<u>£1,875</u>

5th Year.

Assembly Hall	£350
25% freight etc.	85
	<u>£435</u>

ADDITIONS TO GOLD COAST HOSPITAL.

135. When the College is in full swing an additional block to the Gold Coast Hospital will be necessary to supply adequate clinical material. But as this addition is a necessary evolution of the hospital and independent of the formation of a college the cost thereof, which is estimated at £28,250, has not been included in this scheme.

136. The Committee desire to point out that the figures given above in paragraph 133 are merely approximate. There was not sufficient time, before the dispersal of the Committee, for the Public Works Department to draw plans and take out quantities with any degree of accuracy. The above figures are based on rough sketches and cannot therefore be taken as final. Provided that prices do not fluctuate unduly and that no unforeseen difficulties arise, the above estimated cost should be within 10% of the final expenditure.

137. The expenditure annually recurrent which is chargeable in departmental vote, has been estimated as follows:—

<i>Personal Emoluments.</i>	1st Year.	2nd Year.	3rd Year.	4th Year.	5th Year.	6th Year.	7th Year.
Salaries of European Staff ..	£ 5,901	£ 10,511	£ 13,824	£ 20,940	£ 28,668	£ 29,890	£ 30,721
Salaries of African Staff ..	901	1,305	1,682	2,020	2,226	2,414	2,536
Total ..	<u>£6,802</u>	<u>11,816</u>	<u>15,506</u>	<u>22,960</u>	<u>30,894</u>	<u>32,304</u>	<u>33,257</u>
<i>Other Charges.</i>							
Passages ..	437	1,096	1,479	2,198	2,833	2,833	2,833
Outfit Allowances ..	345	210	60	135	—	—	—
Library, upkeep of ..	—	250	250	250	250	250	250
Scientific apparatus, upkeep of ..	—	875	1,910	2,400	2,550	2,600	2,600

<i>Other Charges— continued.</i>	1st Year.	2nd Year.	3rd Year.	4th Year.	5th Year.	6th Year.	7th Year.
Typewriters, maintenance of	—	30	30	30	30	30	30
Telephone charges ..	—	—	—	—	—	—	—
Contingencies	100	100	100	100	100	100	100
Grounds and Gardens, up- keep of ..	100	100	100	100	100	100	100
Food and Fuel	675	1,800	2,925	4,050	5,175	6,300	7,425
Sports Material ..	100	100	100	100	100	100	100
Text books for students ..	60	210	210	210	210	210	210
Total ..	£1,817	4,771	7,164	9,573	11,348	12,523	13,648

REVENUE.

138. The Revenue from students fees is estimated as follows :—

1st Year.	2nd Year.	3rd Year.	4th Year.	5th Year.	6th Year.	7th Year.
£	£	£	£	£	£	£
3,120	6,230	9,350	12,400	15,400	18,800	18,800

These figures include all tuition, residence and boarding charges and a supply of class text books during the first three years of study.

SUMMARY.

139. The total estimated annual cost of the College, when in full running order may be summarised as follows :—

Staff	£33,257
Equipment	13,648
	<u>46,905</u>
Less revenue from fees	18,800
	<u>£28,105</u>

To this should be added the following hypothetical estimates showing interest on capital cost and certain contingent liabilities :—

Interest on capital	£18,359
Maintenance of buildings, etc.	2,949
Pension liability	800
	<u>£22,108</u>

COST PER STUDENT.

140. The sum of these amounts makes a gross total of £50,213. If it be assumed that the annual output of licentiates of the College, when it attains its full working capacity, will amount to thirty, it follows that the average cost per student will not exceed £1,674.

141. The Committee are informed that the cost incurred by an African student taking his medical course in Britain may be estimated on an average at £350 a year. The minimum cost therefore of completing the professional education of such a student in Britain is therefore £2,100 and the average cost considerably higher.

CONCLUSION.

142. It follows on the evidence of these figures that the scheme for the establishment of a West African Medical College, set out in the foregoing section of the report, may be accepted as resting upon an economically sound basis.

TERM OF REFERENCE (3).

“ To prepare conditions under which partial training will be recognised as qualifying students for appointments and medical assistants.”

INTRODUCTION.

143. In paragraphs 17-31 above an account is given of the decisions of the Committee regarding the possibility of conducting the courses of training for fully qualified practitioners and medical assistants in a single school. The considerations there recorded in detail led the Committee to the conclusion that such a policy would not only be undesirable but altogether impracticable. It was explained that a partial training, interpreting this term as implying that a medical assistant could receive his training by attending certain portions of the full curriculum, would not be an effective means of preparing men for the auxiliary service. The Committee therefore for the purpose of dealing with the present term of reference have decided to interpret the expression ‘ partial training ’ as connoting the type of instruction suitable for the medical assistant. They would further advert in this place to the recommendation that schools of training should be independently established in the various West African Colonies.

144. The Committee would reiterate that there is a crying need for the expeditious training of an auxiliary staff to assist the members of the West African Medical Staff, if the full benefit of medical treatment is to be dispersed throughout the large areas and scattered communities of British West Africa. The urgent necessity for such assistance has long been obvious not only to those who have had many years of personal acquaintance with the conditions which exist in those territories but also to those who have had an opportunity of paying visits of inspection to the Coast.

145. The Honourable W. G. A. Ormsby-Gore, M.P., in his report on his visit to West Africa, Cmd. Paper 2744 wrote :—

“ It follows then, that some system must be found for supplementing the fully-qualified service by natives who have received a good general education, and, in addition, who have been trained as dispensers and dressers, and given such an amount of general medical training as to fit them to take emergency measures and to supervise generally the sanitation and public health of a village. Such men exist in Uganda, and it should be possible to establish a similar class in the West African Colonies, more especially in Nigeria. Their work would require supervision by travelling Medical Officers, who might be accompanied by small travelling laboratories, so that in the event of disease breaking out in any particular area, the Medical Officer can be summoned to the spot with the greatest possible speed.”

Sir Frederick Lugard, formerly Governor-General of Nigeria, whose opinion on matters connected with West Africa is entitled to special consideration, in a speech at a recent meeting of the Imperial Social Hygiene Congress laid stress on the urgency of the need for an adequately trained African auxiliary Staff.

146. It is appropriate here to quote the following two paragraphs of Agendum 1 of the Third Conference of the Senior Members of the West African Medical Staff :—

“ The conditions in West Africa which call for remedy are much the same in each of the Colonies and Protectorates and also the same as are found in the different countries of French West Africa. Depopulation has occurred in inter-tribal slave raiding and strife as well as by disease. The latter cause is alone operative now and is delaying recovery throughout the country as a whole, and causing depopulation to extend in some areas. The average density of population varies from about 12 to 150 per square mile, and may safely be said to be considerably below that which the soil and resources of the countries can support. The people of the country are naturally fertile, but this is widely and seriously impaired by venereal disease, and to this is attributed the low birth-rate, which is assumed from experience to be the case. The infant mortality is known to be high, as also the general death-rate, and of late years epidemics have swept over large tracts of country causing deaths running into hundreds of thousands, in area after area. The health of the people as a whole is a long way below what it should be, and in many areas the bulk of the population is C3, probably due in part to nutritional deficiency.

“ *These conditions are largely preventable*, but in order to bring into operation the modern means for combating disease and improving health, a very large staff of skilled workers is required. It is impossible to meet this need by increasing the European highly-skilled staff for they could never be recruited in sufficient numbers, nor could Government afford to meet the cost.”

SELECTION OF CENTRES.

147. It is not within the scope of the Committee's function to make any suggestion regarding the most suitable centres for the establishment of these schools. This will be the concern of each individual Government. It is, however, obvious that this decision must be influenced primarily by the accessibility of an existing hospital in a populous centre providing ample clinical material for teaching purposes.

NO FEES TO BE CHARGED.

148. Students will not be charged any fees for tuition, practical work or hospital practice. They will live rent free in the hostels and will be supplied with food, books, and uniform free of charge. It is suggested that, in addition to the above privileges, a reasonable allowance for pocket-money should be granted.

COURSE OF STUDY.

149. The standard of training in each Colony should be as far as possible uniform. This necessity is so obvious as not to require the support of argument. The Committee therefore proceeded to draw up a plan of study as a guide to establishing a suitable standard.

As a preliminary they gave very careful consideration to the descriptions of the courses of instruction provided for medical assistants in the schools of training in India, Ceylon, the French Colonies and the Sudan.

They found that these various institutions provided courses which were admirable in very many respects ; but not one of them appeared to give a training precisely suitable for the needs of the proposed auxiliary service in British West Africa. They therefore decided that it would be necessary to schedule in some detail a more appropriate curriculum.

ENTRANCE EXAMINATION.

150. Candidates for admission to the training schools shall be required to sit for an entrance examination comprising the following subjects:—English, Arithmetic, Mathematics or Physics, and a vernacular language. This examination shall be of the standard of the Cambridge Junior Local Examination. It is highly desirable that students shall have had some elementary training in Science, and it should be open to the authorities in charge of the training schools to give preference to those so trained when selecting candidates for admission.

DETAILS OF CURRICULUM.

151. The course of training shall cover a period of *four years*. It has been thought desirable in planning this course not only to give in outline a survey of the subjects included in each year of study, but to draft a roughly detailed schedule indicating the scope of each subject. For the full course curriculum this was not necessary, as the recommendations of the General Medical Council define a standard code which permits of no deviation. There is no similar code in force regulating the training of assistants, and the Committee were therefore constrained to devise a scheme which should serve as a guide for the standard required. It is of course to be understood that the training schools will possibly find it desirable in certain minor details to deviate from this scheme ; and it is suggested in any case that it will not be found expedient for any training school to publish for the guidance of students any schedules of study which may limit the powers of their teachers and examiners.

THE FIRST YEAR.

152. The first year shall be devoted to the study of the general sciences ;—physics, chemistry and biology. The course of instruction in physics should be simple and elementary, dealing mainly with the general principles of statics and dynamics, heat, light, sound, electricity and magnetism. In this course, students will be taught the value of precision and exact measures, accuracy in observation and in the recording of observation. They will be given practical exercises in the use of squared paper, the preparation of charts and the interpretation of graphs. They will receive special instruction in the applications of the general principles of physics that are of importance in medicine and hygiene, and more particularly in those that explain the use of scientific instruments. They will be instructed in the use and working of the following instruments :—thermometer, maximum and minimum, the clinical thermometer, lenses, microscopes, the eye as an optical instrument, spectroscopes, stethoscopes, etc. Instruction will also be given in the physical causes underlying such natural phenomena as land and sea breezes, trade winds, rainfall, eclipses, the effects of wind on sound, storms, thunder and lightning.

The course in chemistry will be theoretical and practical, elementary in scope, illustrating the nature of chemical compounds and mechanical mixtures, elements and compounds, acids and bases, chemical and physical changes, constancy of mass, indestructibility of matter, the atomic theory, the nature of molecules, chemical formulæ and equations. They will receive practical instruction in the rudiments of chemical analysis, and in the use of the chemical balance. The course will include also lectures and practical illustrations of the laws of gases, diffusion,

distillation, solution, crystallisation, electrolysis, valency and structural formulæ. More detailed instruction will be given in the more important chemical substances and particular stress will be laid upon those of importance in medicine. The course in organic chemistry will comprise the study of the hydrocarbons and their halogen derivations, alcohols and ethers, aldehydes and ketones, acids, esters and salts; carbohydrates, hydrolysis and fermentation; amides, amines and aromatic compounds. Stress will be laid upon the reactions of certain prominent members of these groups, particularly those of importance in medicine.

The course in general biology will include an elementary survey of general principles, interpretations and definitions, distinctions between animals and plants, the nature of protoplasm, adaptation, the rudiments of embryology, the cell, heredity and evolution, symbiosis and parasitism. The principles of classification in the animal and vegetable kingdoms will be described and illustrated. Demonstrations and practical instruction will be given to cover a study of the following types: Protozoa—Amoeba, free-living and parasitic, Euglena, Trypanosoma, Paramoecium, Vorticella and the Malaria Parasites; Coelenterata—Hydra; Platyhelminthes—Fasciola, Bilharzia, Tænia; Nematodes—Ascaris, Ankylostoma; Arthropoda—Astacus, Pediculus, Insecta (flies and mosquitoes); Vertebrata—Frog, Rat. In the laboratory, students will receive instruction in the use of the microscope, the handling of apparatus and the technique of laboratory manipulations.

THE SECOND YEAR.

153. In the second year, the students will receive instruction in elementary anatomy, physiology, pharmacy, minor surgery and bandaging. They will attend post-mortem and practical anatomy demonstrations during this and the subsequent years of study.

The course of instruction in anatomy shall comprise lectures and demonstrations in osteology, systematic, regional and applied anatomy. These will be illustrated by means of prepared specimens, and by demonstrations in the post-mortem room. Surface anatomy will be studied on the living subject.

In physiology, there will be a course of lectures in the general special and applied aspects of this science. Histology will mainly be taught by means of practical demonstrations with prepared microscopic specimens. Students will not devote any time to the preparation, mounting or staining of sections, though for the sake of completeness this branch of laboratory technique will be explained by means of demonstrations. On the other hand, they will receive careful instruction in blood film work and hæmatology generally. As regards experimental physiology, this will be taught mainly by means of demonstrations, but students will also have opportunities of acquiring familiarity with the use of instruments of precision by means of experiments upon themselves and their fellow students. The course in practical biochemistry is regarded as the most important branch of practical physiology and should be as full as the time available will permit.

The course of instruction in materia medica, pharmacology, practical pharmacy and therapeutics is to be regarded as of very great importance and should extend over two years. It will consist of lectures, demonstrations and practical classes held once a week or more frequently if it is considered to be necessary. Students will be given an opportunity of studying the appearances of the crude drugs, particularly those of local importance, and they should learn to recognise the appearance of any locally growing poisonous plants.

The action of certain drugs should be shewn, if possible, by means of pharmacological demonstrations. The practical classes in pharmacy should cover instruction in the complete technique of pharmaceutical processes, and after the students have acquired skill at this work they should proceed in the latter part of the course to the routine interpretation of prescriptions and to the compounding and dispensing of medicines. A high standard should be required in this subject. The medical assistant will have to work in isolated stations and will not have access to the services of a druggist in the preparation of medicine. He should therefore be trained up to a high degree of proficiency in this subject.

The remaining time available during the second year will be occupied with practical classes in bandaging and minor surgery. He will learn how to do simple dressings, and the importance of care and cleanliness can thus be impressed upon him at this early stage of his studies.

THE THIRD YEAR.

154. In the third year students will receive instruction in elementary medicine and surgery, clinical pathology and bacteriology. They will attend the wards and outpatient departments and will continue their studies in pharmacy.

The courses in pathology and bacteriology will be general and special, comprising a series of lectures followed by demonstrations of slides, charts and specimens. Each student will be carefully instructed in clinical pathology and will be expected to become proficient in the routine laboratory diagnosis of malaria, tuberculosis, etc.

When not otherwise occupied, students will spend their time in the wards, outpatient department and operating theatres, acquiring instruction in case taking, note taking, the recognition and interpretation of physical science and symptoms, the practice of asepsis and the art of dressing. They will be expected to take part in every detail of the care and nursing of patients. To ensure this each student will be appointed for definite periods of clerking and dressing.

Courses of lectures in medicine and surgery will be given during this year. These courses will be conceived as a whole on an elementary scale. Stress will be laid mainly on diseases of local importance, and it will be permissible to dismiss in a very few words those which are not likely to come within the purview of the medical assistant.

THE FINAL YEAR.

155. During his fourth year instruction in medicine and surgery will be continued and stress will be laid on the diagnosis of infectious and epidemic disease, and on the treatment of medical, surgical and dental emergencies. Further, students will be required to attend lectures and practical demonstrations in public health and lectures in midwifery with practical instruction, including ante-natal hygiene and child welfare work.

The student will continue his hospital work and his instruction during the course of this last year will, to a larger extent, be framed with a view to fitting him for the duties and responsibilities he is destined to meet. He must be taught in such a manner that he can apply prompt measures to deal with emergencies that may arise in isolated stations. These will include cases of medical and surgical urgency as stated above; he may also be called upon to render aid in cases of difficult and obstructed labour and in other obstetrical emergencies, and in order that he may

cope adequately with these, he should be given an opportunity of gaining as complete an experience in midwifery practice as circumstances may permit. It is unnecessary to schedule in detail the special instruction that is needed to fit the assistant for this aspect of his duties, but obviously he must be equipped in such a way that he may always be prepared to undertake on his own responsibility such measures as may be necessary to alleviate pain and avert disaster and death.

The medical assistant will also be responsible for the prevention as well as for the cure of disease and to this end he should be given a thorough course of instruction in hygiene, theoretical and practical.

The legal position of the medical auxiliary service will be explained and a careful exposition given of the ethical obligation of the medical assistant and of his duties, privileges and restrictions.

The practical instruction in hygiene will include visits, under the guidance of the Medical Officer of Health or the Chief Sanitary Inspector, to places and works of importance for this subject. They will visit the offices of the health department and be given an insight into routine administration. They will be shown over prisons, schools, police barracks, classes, slaughter houses, markets, stables, etc. They will be instructed in meat inspection, water supplies, methods of sewage disposal, ante-malarial measures, destruction of flies, rats and other vermin, disinfection, vaccination, village sanitation, etc.

EXAMINATIONS.

156. At the end of the first year an examination will be held in Chemistry and Physics and Biology; at the end of the second year, the examination will include Anatomy and Physiology. There will be no examination in the third year. The final examination for the certificate will comprise Medicine, Surgery, Midwifery, Hygiene, Pathology and Pharmacy. The examination should be mainly practical in nature. No student shall be allowed to proceed further in his training until he has satisfactorily passed the examination covering the previous stage of study. At the final examination the examiners will have at their disposal a record of each student's hospital work, and due credit will be given to such students as may have a record of diligent, intelligent and conscientious performance of their duties. In the event of failure at any examination, a student will be required to present himself for further examination three months later. These special examinations for referred candidates shall be held at three monthly intervals.

After failure at two such special examinations, he may be regarded as unfit for the service and required to leave the school.

BOARD OF EXAMINERS.

157. A Board of Examiners shall be constructed in each Colony who shall be responsible for maintaining a standard compatible with the requirements of the Medical Auxiliary Service. It is highly desirable that the Examiners shall be interchangeable between the different Colonies in order to ensure the maintenance of a uniform and adequate standard.

NUMBER OF MEDICAL ASSISTANTS REQUIRED.

158. The Committee consider that at the outset a reasonable aim should be to provide one assistant for every ten to fifteen thousands of population. On this basis Nigeria would require at least 1,500, the Gold Coast about 250 and Sierra Leone 150. This will necessitate the admission every year to the schools of not less than 60 students for the Northern

Provinces and 90 for the Southern Provinces of Nigeria, 25 for the Gold Coast and 20 for Sierra Leone and the Gambia. Making due allowance for wastage, this would secure the provision of the number of assistants adequate to meet the above requirements in from 16 to 20 years' time.

STAFF.

159. The following staff will be required :—

- One Physician.
- One Surgeon.
- One Assistant Surgeon.
- One Pathologist.
- One Dispensing Instructor.
- One Medical Tutor.
- One Sister Tutor.
- One Science Master.

Of these, the first four constitute the minimum staff essential for a hospital ; the last four will be required to devote the whole of their time to teaching. The Medical Tutor and the Science Master will be responsible for the charge of the hostel. The usual quota of European nursing staff allocated to an African hospital in West Africa will be insufficient in a hospital used for medical training. The staff will therefore have to be augmented. Part-time service will also be required from the Sanitary Branch of the Medical Department.

BUILDINGS.

160. The minimum requirements for school buildings will be two lecture rooms and two large laboratories, an office and Board room, reading room, cloak room and lavatory accommodation. Hostels will also be required as all students must be resident. Each hostel should be planned to accommodate a convenient number of students. The number of hostels will be determined by local requirements. In addition to sleeping accommodation, the hostels will contain common rooms, reading rooms etc. It is, however, recommended that a single central dining room should be built for all the students.

During the opening years, the hostels may be built in stages to meet the gradually expanding requirements ; but the Committee would emphasise the importance of distributing the students in the various years of study evenly through the different hostels. This would make of each hostel a convenient unit for purposes of recreation and kindred amenities.

CERTIFICATES.

161. After passing the Final Examination each student will receive a Certificate of Proficiency. This will entitle him to admission as a member of the Medical Auxiliary Service. It must be emphasised that he will only be allowed to perform his duties under strict supervision and subject to periodic inspection by a medical officer. On the certificate it shall be clearly stated that the holder is not entitled to engage in any form of medical work outside Government service.

DISTRIBUTION OF MEDICAL ASSISTANTS.

162. After they have received their Certificates, medical assistants will be distributed in accordance with the requirements of the Service. It is contemplated that they will be posted to stations radiating from a fully equipped hospital, public health and child welfare centre.

LEGAL PROVISION.

163. It will be necessary that each Colony provide by legal enactment for the status of medical assistants, for examiners to be appointed from time to time, for the granting of certificates and the registration, regulation and control of the Medical Auxiliary Service.

A suggested draft Bill in respect of the Gold Coast Colony is contained in Appendix IV.

NO ESTIMATES PREPARED.

164. No attempt has been made to draw up an estimate of the capital or annual cost of the medical assistants training school. The schools in the different colonies will obviously differ greatly from one another in scale, in arrangement of buildings and in many other particulars. The variation of local conditions would stultify any attempt to generalise, and such an estimate would therefore only be misleading. It will, however, be a matter of no great difficulty for the responsible officer in each colony to utilise the suggestions given in the foregoing paragraphs as a basis for drawing up an estimate.

W. D. INNESS,

*Director of Medical and Sanitary Service,
Gold Coast (Chairman).*

D. ALEXANDER,

*Director of Medical and Sanitary Service,
Nigeria.*

J. C. S. McDOUALL,

*Director of Medical and Sanitary Service,
Sierra Leone.*

THOMAS B. ADAM,

*Deputy Director of Medical and Sanitary Service,
Nigeria.*

G. H. MACALISTER,

*Principal of the Medical College,
Singapore.*

A. G. FRASER,

Principal, Achimota College.

SUPPLEMENTARY NOTE BY THE DIRECTOR OF MEDICAL
AND SANITARY SERVICE, SIERRA LEONE.

The scheme drawn up for the training of Medical Assistants has a closer relation with, and would have more effect on, the present system for training dispensers and male nurses in Sierra Leone than would be the case in Nigeria or the Gold Coast.

In the latter place the training of these two classes is kept separate and distinct throughout, the school of Pharmacy being a separate entity under its own Superintendent and the personnel of the two establishments is not interchangeable. In Sierra Leone, however, nurses after their first year in training take up study as dispensers-in-training concurrently with their other studies. Having passed examination in nursing at the end of each of their first three years, in the fourth year or subsequently they may sit for the Druggists' examination and if successful, remain in the service as 1st Class Nurses until a vacancy in the establishment of Dispensers occurs, to which they may be promoted. Thus the Dispenser in Sierra Leone approaches much more closely in the general scope of his training to the proposed class of Medical Assistants than is the case in the other Colonies, and in fact is already used in that capacity. His standard of knowledge in clinical medicine and surgery, however, is considerably short of that projected in the scheme under consideration, while his qualification as a chemist and druggist is higher than that required in that particular of the Medical Assistant. The establishment of a school for Medical Assistants in Sierra Leone, therefore, would appear to necessitate an alteration in the present methods for training dispensers and nurses and would probably adversely affect recruiting for the latter establishments.

APPENDIX 1.

DESPATCH FROM THE SECRETARY OF STATE
TO THE GOVERNOR.

GOLD COAST.
No. 915.

DOWNING STREET,
19th September, 1924.

SIR,

With reference to my predecessor's despatch No. 72 of the 22nd of January, I have the honour to transmit to you the accompanying copy of a despatch, with enclosures from the Governor of Sierra Leone regarding the measures taken by the Government of French West Africa for extending Medical aid to native populations.

2. I shall be glad to receive your observations on the subject.

I have, etc.,

J. H. THOMAS.

THE OFFICER ADMINISTERING
THE GOVERNMENT OF THE GOLD COAST.

ENCLOSURE I TO NO. I. (GOLD COAST NO. 915 OF THE 19TH
SEPTEMBER, 1924.)

SIERRA LEONE.

GOVERNMENT HOUSE,

No. 282.

SIERRA LEONE,

24th June, 1924.

SIR,

I have the honour to refer to the Duke of Devonshire's despatch No. 13 of the 22nd January last, transmitting a copy of a memorandum by His Majesty's Consul-General at Dakar, on the subject of the measures taken by the Government of French West Africa, in order to extend medical aid to the various native races under its administration.

2. Mr. Maugham's memorandum is of great interest, and I am sure that all the British West African Governments are grateful to him for the trouble he has taken to glean the information, which he has thus placed at the disposal of our medical departments. It has come as a useful and up-to-date supplement to the more detailed description of the School of Medicine at Dakar, which was written some two years ago by Dr. J. M. O'Brien, M.B.E., Senior Medical officer of the Gold Coast, and copies of which I presume are on record in your department, (*vide* paragraph III of Sir Gordon Guggisberg's Review of February, 1922).

3. I referred Mr. Maugham's memorandum to the Acting Director of Medical and Sanitary Services (Dr. O'Hara May) for his comments and I attach copies of minutes by him and the Acting Deputy Director of Sanitary Service (Dr. Peacock). Both these Officers appear to be under the impression that the French Government is more liberal in its medical and sanitary expenditure, than are the British West African Governments, but I have pointed out to them that the four latter Governments are spending something like £600,000 per annum on their Medical and Sanitary Departments, which (even allowing for a larger population) compares favourably with the French 10,000,000 francs referred to by the Consul-General, which at 80 francs to the pound is only equivalent to £125,000. Where the French appear to me, to be ahead of us is in their judicious allocation of a large part of their medical expenditure to the "mass training" of Africans in medicine, hygiene and midwifery.

4. Dr. Peacock surmises that the French "system of education, both primary and secondary, is far ahead of anything we have in Sierra Leone," while Dr. O'Hara May observes "the lack of proper ground-work education is apparently not met with in the French Colonies." Yet I notice that Dr. O'Brien writes (on page 12 of his paper):—

"In my endeavour to instruct our dispenser pupil class, I have found their lack of a practical acquaintance with simple arithmetic a great stumbling block, *and the same difficulty has been noted in Dakar*" (the italics are mine).

In any case I feel confident that the personnel available in British West Africa, will prove amply competent, as soon as the standard of secondary education has been improved, to profit by the training in a medical school on the lines of that at Dakar. I may indeed point out that three of our (Sierra Leone) fully qualified African Medical Officers received no other secondary school education than that which they obtained in Freetown Schools. I entirely agree, however, with Dr. O'Brien's remarks on page 32 of his paper where he writes:—

"My experience of those natives who have passed the seventh standard of our schools, leads me to think that for medical training we will need a student with a considerably higher degree

of general education and mental development. Here I think, we might closely follow the French model and demand at least two years at a higher school, in which some preliminary science could also be taught."

Obviously, there is urgent need for improving the standard and widening the curriculum of even our secondary schools : as regards Sierra Leone, the King Tom (Government) School which I hope to open next year will be a first class secondary school with a " modern school " bias. I believe that the " Church Missionary Society Grammar School " and the " Wesleyan Boys' High School "—schools with a deservedly high reputation and the tradition of many years' good results behind them—will follow suit if Government can afford to give them a reasonable measure of aid.

5. Dr. O'Hara May writes in his minute :—

" The French natives must be more keen on education than ours, as one cannot conceive the young male and female intelligentsia of the Gold Coast, or Ashanti entering for a competitive examination, the result to the successful being three, four or five years' intensive study under strict rules and discipline without pay. It would be interesting to know what remuneration and agreement holds with those who obtain their diplomas ; presumably at first they are all taken into Government service."

As to this it appears from Dr. O'Brien's paper that the " Medical Assistants " trained at Dakar receive free board, lodging and pocket money during their training, are guaranteed Government appointments, and are to get on passing out, salaries ranging from £200 to £480 (at par of exchange), while midwives will draw £150 to £384 (at par). These are prospects which would, certainly in Sierra Leone, attract many bright boys and girls whose parents cannot afford to send them to England.

6. To my mind the lesson to be learnt from the French policy as exemplified at Dakar, is that the problem of extending medical aid to the natives of West Africa, is so vast that considerations of finance altogether preclude it being tackled by a complete staff of fully qualified male and female doctors. To quote Dr. O'Brien's remarks on the future careers of the French " Medical Assistants " :—

" The young natives qualified as Medical Assistants will be put to work under the orders of the Medical Officers in the districts supervised by them. Their duties will be to treat simple cases, to assist serious cases until they can be handed over to the Medical Officer, and to carry out such treatment as the Medical Officer may direct. They are not to be allowed private practice, or to undertake any but the slightest or most urgent responsibility. Though not allowed to charge fees, they should receive suitable sums when employed by the Medical Officer, to assist in the treatment, or nursing of his private patients.

" Their work is to be entirely that of assisting the Medical Officer in ministering to his district, where by reason of its size or the amount of work, he is unable to attend to all his duties single-handed. *They are not at all to be regarded as fully responsible and qualified practitioners.*" (The italics are mine).

It would appear, both from Mr. Maugham's and Dr. O'Brien's reports that the French Government will secure about eight qualified " Medical Assistants " every year from now onwards. As regards midwives, I note from Mr. Maugham's memorandum that no fewer than 30 midwives were drafted to various centres in French West Africa, during the year 1922 and I gather that the annual output will be fifteen. A regular

supply of trained African men and women (whose maximum salaries however, will not exceed £480 and £384 respectively,) thus appears to be assured for French West Africa. I consider, and my Acting Director of Medical and Sanitary Services agrees with me, that a good nucleus of fully qualified (European and African) Medical Officers (*i.e.*, men and women who have obtained British Diplomas) with a number of well-trained "Medical Assistants" would amply suffice for the needs of this Colony. (I understand, moreover, that this is the policy adopted by the Indian Government). What the strength of the highly qualified nucleus for Sierra Leone should be, will be more appropriately discussed in a separate despatch, but it is certain that the number of "Assistants" who will be required for British West Africa (if the policy of employing such a grade is approved), will be very large, and that therefore the sooner we begin to train them the better.

7. I venture to submit, therefore, that the time has come when the question of establishing a central medical school for British West Africa, either on the lines of the French School at Dakar, or otherwise, should be seriously considered, and I suggest that a favourable opportunity for a preliminary discussion of the subject will present itself next month when at least three of the Governors will probably be in England.

8. I note from paragraphs 154-160 of Sir Gordon Guggisberg's "Review" of the 6th March, 1924, that he proposes establishing a medical school at the Gold Coast Hospital where medical students will receive their first two years' professional training (after specializing at the Achimota School), and that they will then proceed to England to complete their training. This appears to presage the formation (paragraph 154) of a "large staff" of fully qualified African Medical Officers whose salaries presumably will be on the approved scales, *viz.*, £500-£20-£600 then £600-£25-£700. I am not clear whether the projected Accra Medical School is also going to produce the sort of "Super-Dispenser" whom the French designate as a "Medical Assistant." If not, and if it is intended that the African Medical Officers are to do the work, which in French West Africa is being put in the hands of Medical Assistants (under the supervision of a nucleus of European and African Medical Officers), I venture to point out that the cost will be very large, almost certainly larger than this Colony, at any rate, is likely to be able to afford.

If on the other hand, the local training at the Accra Medical School will in itself produce men who could appropriately and usefully be appointed Assistant Medical Officers to perform the functions, which the French allocate to "Medical Assistants," the Government of Sierra Leone will, I feel sure, gladly contribute to the support of the school, if it will take students on that understanding.

9. The Gold Coast Government also, I gather, contemplates instituting a "residential school for midwives." As to this, Dr. Peacock writes:—

"It might be difficult to get pupil midwives to go to Accra, and in any case, it should be quite possible to train the ordinary midwife in the Maternity ward of the Colonial Hospital. But we shall want two or three more Health Visitors for Freetown to develop the work, which Miss Cole has started. They ought to have qualifications in General Nursing, Midwifery and Hygiene and might well be trained at Accra, if a suitable curriculum is available. Perhaps the Gold Coast Government will start such a course for "Health Visitors," which would certainly be of the greatest value."

Dr. O'Hara May endorses these views, and after discussion of the subject with them and the Colonial Secretary I am disposed to agree. If it was considered necessary to give the prospective midwives the elaborate training that the French appear to give (*vide* pages 27 and 28 of

Dr. O'Brien's pamphlet), it would no doubt be necessary to have a staff of several European officers (*vide* page 23 *idem*), but my advisers consider the French system unnecessarily ambitious. Moreover, they point out that the important factor in the training of midwives is that they should have constant facilities for practising what they learn; a few pupil midwives in training in Freetown, where owing to the presence of the Princess Christian Mission (Women's) Hospital there are excellent opportunities for practising midwifery, will be better off in this respect, than would be a large class at Accra, a town which has no larger a population.

10. On the other hand, if the proposed Medical School at Accra provides facilities for training Sanitary Inspectors on the lines of the curriculum drawn up by Dr. Beringer (copy herewith), this Government will gladly support that part of the scheme, as my staff of Sanitary Officers is too small to be able to devote adequate time to teaching.

I have, etc.,

A. R. SLATER,
Governor.

THE RIGHT HONOURABLE

J. H. THOMAS, M.P.,
ETC., ETC., ETC.

ENCLOSURE 2 TO NO. I (GOLD COAST NO. 915 OF THE
19TH SEPTEMBER, 1924).

DR. O'HARA MAY'S MINUTE, DATED 20TH FEBRUARY, 1924.

HONOURABLE COLONIAL SECRETARY,

The resources of the French Colonies for medical work and their methods of applying them fills one with envy.

2. A similar training centre or university on an elaborate scale, where not only degrees in medicine and its allied subjects, but also in law, engineering and theology could be obtained, has been frequently mentioned by the Governor of the Gold Coast in his speeches, but I think he realizes that the standard of primary and secondary education would have to be vastly improved before such an university would be of very much use.

3. I had a few years' experience of trying to teach Sanitary Inspectors and Vaccinators in the Gold Coast; the majority of the applicants for these posts, although they had passed the required standard of education, wrote badly, read worse, and the speaking knowledge of the English language was crude and of the "pidgin" variety, all of which made the absorption of knowledge very difficult.

4. This difficulty or lack of a proper groundwork education is apparently not met with in the French Colonies; and again the French native must be more keen on education than ours, as one cannot conceive the young male and female intelligentsia of the Gold Coast, or Ashanti enter in

for a competitive examination, the result to the successful being three, four or five years' intensive study under strict rules and discipline without pay. It would be interesting to know what remuneration and agreement holds with those who obtain their diplomas; presumably at first they are all taken into Government service.

5. There is no doubt that this training college in the French Colonies is a most progressive step and in years to come will show returns beyond conception; it ought to reduce the infant mortality to the level, found in highly-civilized communities, check the awful spread of venereal disease and decrease the incidence of leprosy; but it is in infant immortality—which, after all, is of the first importance—that good results will be found.

6. One would welcome such a centre in the British West African Colonies, even if it did not go to the length of turning out qualified doctors—only highly-trained nurses, midwives and sanitary inspectors; the spasmodic teaching here and in the Gold Coast does not, nor ever can turn out the finished article.

7. I attach some remarks from Dr. Peacock.

H. O'HARA MAY,
Acting Director, Medical and Sanitary Service.

ENCLOSURE 3 TO No. I (GOLD COAST No. 915 OF THE
19TH SEPTEMBER, 1924).

DR. PEACOCK'S MINUTE, DATED 15TH FEBRUARY, 1924.

AG. D.M.S.S.

I have read with great interest this memorandum on Medical and Sanitary Education in French West Africa. It is evident that the French are able to obtain recruits of both sexes of a very high degree of intelligence, and that their system of education, both primary and secondary is far ahead of anything we have in Sierra Leone. Even if funds and a trained teaching staff were available in this Colony, it would be quite impossible to find boys and girls capable of assimilating a curriculum in any way approaching that of the French. At the present moment we are in a position to train Sanitary Inspectors for the various grades, but it has so far been quite impossible to fill vacancies in any grade except the lowest.

2. The dream of a central institution for medical and sanitary education must have been present at one time or other in the minds of a good many officers of the West African Medical Staff, who are concerned with the training of Africans for medical and sanitary posts. I made some reference to this several years ago in a letter on the training of Sanitary Inspectors. At the present moment our African Medical Officers are representative of the Colony alone. If we had a West African Medical School, some of the best of the Protectorate boys (e.g., from Bo School) might qualify in medicine and do good work in practising medicine and Public Health under suitable supervision amongst their own people.

3. The French Administration is able to provide large funds for its Medical establishments, a total of £400,000 per annum (at par of exchange) and £40,000 for the Medical School alone.

4. The activity shown in the training of Midwives, indicates a clear appreciation of the infant mortality question. It is perhaps not generally realized what a very high proportion of the infantile mortality takes place at or very shortly after birth. I have recently analysed 598 deaths of infants under twelve months occurring in Freetown in 1922 and 1923, and I find that no less than 45 per cent died within the first fourteen days, and in a very large proportion of cases death took place within a day or two or even within a few hours of birth. To these must be added the still-births, which are recorded separately. This large portion of the infantile mortality will hardly be touched by house-to-house visiting by a District Nurse, and the establishment of Welfare Centres, useful as these measures undoubtedly are for the infants who survive birth for any length of time. The very early deaths can only be checked to any extent by a proper system of midwifery, which entails the training and maintenance of a staff of Midwives and the education of the parents to make use of them.

5. The fact that educated girls of various races can be found in French West Africa to undergo training as midwives, indicates that education has spread to the hinterland to a degree unknown in Sierra Leone. We should find it almost impossible at present to obtain educated Mendi or Temni girls suitable for training as midwives. Possibly such schools as the one now built at Moyamba will be of use to us, when we are in a position to undertake measures for the preservation of infant life in the Protectorate.

W. H. PEACOCK,
Acting Deputy Director, Sanitary Service.

ENCLOSURE 4 TO No. I. (GOLD COAST No. 915 OF THE
19TH SEPTEMBER, 1924).

DR. PEACOCK'S MINUTE, DATED 19TH MAY, 1924.
AG. D.M.S.S.

The explanation of the high standard of education of the male students in training at the Medical Institutions at Dakar, is apparently to be found in the William Ponty Secondary School at Goree, which receives the best of the students from the schools of all the French West African Colonies. The embryo medical students are selected by examination from those of the highest character and intelligence at the William Ponty School, and their first year at the Medical School is also devoted to general education. As regards the future midwives, their preliminary education is evidently not of a high order.

2. It is to be hoped that the King Tom School will eventually provide a sufficiently high standard of education to enable Sierra Leone students to undertake with some prospect of success, a curriculum approximating to that of the French. Bo School should also be useful and has the great advantage of being a boarding school. Mathematics and science are of considerable importance, but it is necessary to lay the greatest stress

on the thorough teaching of English. The ordinary youth of average education in this Colony seems to have little knowledge of the meaning of words. A familiar example is to be found in the mistakes made by typists in copying from a written draft, which could not occur if the context conveyed any meaning to them.

3. The Government of the Gold Coast apparently proposes to put into operation the following schemes :—

- (i) A post-graduate course for African Medical Officers entering the Government Service ;
- (ii) Course to enable Medical Students educated at the Achimota Secondary School, to be trained locally in the subjects of the first and second professional examinations, thereby shortening their medical curriculum in England by two years ;
- (iii) The provision of a Maternity Hospital with residential school for midwives. General Guggisberg also foreshadows “ the ultimate formation in the Gold Coast of a complete School for Medicine,” but considers that “ the date for this is still far off.”

4. These schemes in their present form have very little bearing on the training of a Sanitary Staff, to which I confine myself. So far as Sierra Leone is concerned, I should like to see at Accra a course for West African Sanitary Inspectors, somewhat on the lines of the curriculum drawn up by Dr. Beringer in the Regulations for Sanitary Inspectors.

5. It might be difficult to get pupil midwives to go to Accra, and in any case, it should be quite possible to train the ordinary midwife in the Maternity Ward of the Colonial Hospital. But we shall want two or three more Health Visitors for Freetown to develop the work, which Miss Cole has started. They ought to have qualifications in General Nursing, Midwifery and Hygiene, and might well be trained at Accra if suitable curriculum is available. Perhaps the Gold Coast Government will start such a course for Health Visitors, which would certainly be of the greatest value.

W. H. PEACOCK,
Acting Deputy Director, Sanitary Service.

II.

DESPATCH FROM THE GOVERNOR TO THE SECRETARY
OF STATE.GOLD COAST.
No. 876.GOVERNMENT HOUSE,
ACCRA,
7th November, 1924.

SIR,

With reference to your Despatch No. 915 of the 19th September, 1924, I have already received direct from the Governor of Sierra Leone a copy of his Despatch No. 282 of the 7th July, 1924, and have replied to him in my Despatch Gold Coast (Sierra Leone) No. 176 of the 16th of September. Briefly, I concurred with Sir Ransford Slater's view, that a large number of Assistant Medical Officers is necessary, but I pointed out that, at the present time as far as the Gold Coast is concerned, the African public is a little sensitive on the subject of "Assistant" Medical Officers; and that, with regard to midwives and sanitary officers, I should be glad to assist Sierra Leone in the manner suggested.

2. With regard to the first point mentioned above, the intelligentsia of this country naturally aspire to any post in the Government Service. I have, from time to time, informed them that I am in sympathy with their aspirations, provided always that in their character, education and technical, or professional training, they are at least equal to the type of European who is at present filling these appointments. Character-training in the Gold Coast, as elsewhere in West Africa, is generally deficient, as is also secondary or higher education, while, with the exception perhaps of the Gold Coast Survey, technical and professional training suitable for appointments now held by Europeans is of a low standard. Practically all applicants who have sufficient educational and professional qualifications to take up "European appointments" are compelled to obtain both in Europe. Entirely apart from the very serious effects in the majority of cases of European residence on character, training in Europe necessitates such heavy expenditure that but few Africans are able to enjoy it. We have therefore been unable to offer any appointments to Africans, although in a certain number of cases we have stretched our principles to breaking-point to show that we are earnest in our intentions, to encourage them to persevere, and to reward long and faithful service coupled with practical experience.

In the case of the Medical Service, the professional training of the African in Europe has one serious defect, namely, the opportunity of obtaining clinical practice. This has led to the failure of more than one, who has subsequently been admitted to the Government Service, and has certainly handicapped nearly all who have managed to overcome this difficulty. While we are ready to satisfy the aspirations of the African people by admitting students who have qualified in Europe, the results, on the whole, have not been successful, although there are conspicuous examples to the contrary. We have therefore instituted as you are aware, a new system of providing appointments for "Junior African Medical Officers" at £400 per annum with the object of affording opportunities of clinical practice at the Gold Coast Hospital to Africans who have been trained in Europe and of eventually appointing them as Medical Officers in the West African Medical Service. When this proposal was originally made it raised such an outcry from the intelligentsia as to show how acute the desire for full recognition appears to be. We have, however, put the scheme into force and, pending the taking effect of Achimota College, there is, in view of what I am afraid, is a certain amount of laxity in the grant of medical degrees in Europe to Africans, no other solution of the problem of getting efficient and fully-qualified African Medical Officers.

It is possible that in time a certain number of young Africans educated in England will modify their ideas and will accept the post of Assistant Medical Officer ; but I have no great confidence that this time is near at hand.

I have gone somewhat fully into the question as above in order to make perfectly clear to you the situation with regard to both fully-qualified African Medical Officers and Assistant Medical Officers.

3. I am emphatically of the opinion that any attempt to provide African Assistant Medical Officers, without at least giving them the opportunity to qualify fully as Medical Officers, is doomed to failure in the Gold Coast at any rate ; nor judging from my experience of men of the intelligentsia class, from all the other British West African Colonies, do I think that the latter are any exception. Any such failure should be avoided, for, as on several occasions I have stated, and certainly at least once brought to your notice in a Despatch, I am firmly of opinion that we shall never make satisfactory progress in dealing with the great problems of medicine and sanitation affecting the public health in this country until we have a staff of fully-qualified African Medical and Sanitary Officers in the West African Medical Service, supplemented by a large staff of Assistant Medical Officers. My policy to give effect to this belief is definite and can be briefly stated as follows.

4. At Achimota College we shall have chairs established for all those special branches of higher education, which form the preliminary to a full medical training. The students destined for the medical profession will, besides enjoying the benefit of the general higher education and the character-training that will be provided at Achimota, be prepared in the special subjects necessary to enter a medical school or university. Presuming that Achimota will open on the 1st of January, 1927, the earliest date at which we can expect to provide suitably trained candidates for the Medical school will be the 1st of January, 1931, by which time they will have been four years at Achimota. I consider that this forecast is on the optimistic side, for it must be remembered that, for several years, Achimota College will fulfil the functions of a secondary school and a university. The number of candidates available in 1931 will therefore not be large, but they will increase in numbers as each year passes after that date.

5. Having qualified to the utmost extent possible in the preliminary subjects for medicine, candidates for the profession will then enter the medical school at Korle Bu. I have taken up the ground for this school by extending the area occupied by the Gold Coast Hospital, where valuable opportunities for clinical practice will be available. Full details of this school are now being drawn up. The cost both of construction and equipment and of maintenance will be large in view of the importance of the subject and the highly-trained professorial staff that will be required. I am happy to say that I have been able, thanks to the kindness of certain visitors, who have seen the Gold Coast Hospital, to form reasonable anticipations of being able to raise the whole of the money required for construction and maintenance from sources outside the Government. On this subject I should be glad to confer with you on my return to England on my next leave. There is no actual hurry at the moment, for the Medical school will not be required, as I have pointed out, until the 1st of January, 1931.

This medical school will make provision for the training not only of Medical Officers, but also of Medical Officers of Health and Sanitary Inspectors. It will, in a word, deal with the question of public health. I anticipate no difficulty in getting the British medical authorities to agree to a medical degree, provided that we work in co-operation with them. Those at the Gold Coast Medical School who qualify fully as Medical Officers will receive appointments as such ; the remainder will have the opportunity of receiving appointments as Assistant Medical

Officers, which appointments, I believe they will be glad to accept, especially if we make provision for their re-examination under certain conditions after they have had experience and opportunities for further private study.

6. As far as I am concerned I should welcome at this medical school candidates from other British West African Colonies. Further than that I should be prepared to admit Africans from any part of the British Empire. I may point out here, however, that facilities for character-training and a searching examination into each student's character, will form an essential part of the curriculum at any medical school or university which we start in this country.

7. With regard to the question of midwives, I have already seen the preliminary plans for the construction of a maternity hospital and school of a residential nature, in the grounds of the Gold Coast Hospital, and a definite scheme is being drawn up. The alternative of having simply a maternity ward as opposed, to a maternity hospital and school, is being considered. It is not my opinion that this alternative will be satisfactory, but here, as in the case of the medical school, a great deal depends on the results of my suggested conference with you on the subject of the funds.

8. The establishment of welfare centres has been receiving my close attention for the past four years. All efforts to secure the co-operation of African citizens of the intelligentsia class, have lamentably and conspicuously failed. This is not surprising: they want a lead. This lead I am now giving them through the women Medical Officers who are being appointed. I am building, with your approval, for these women medical officers, a small hospital-dispensary costing about £4,000 which will include sufficient beds to enable the woman Medical Officer to treat her own cases, any overflow going to the Gold Coast Hospital. In due course this system will be developed until around each of these dispensary-hospitals a welfare association will be working, composed largely of the educated African citizens and their wives. Pending the building of this school I am arranging for certain beds in the Gold Coast Hospital to be reserved for the treatment of their infant patients by the women Medical Officers themselves.

9. As I have informed Sir Ransford Slater, I shall, as far as I am concerned, be more than pleased if he will utilise for the training of Africans of Sierra Leone any or all our facilities. I may say here that I anticipate that a start in constructing the maternity hospital and school will be made towards the end of 1925.

10. In conclusion, I apologise for the length of this Despatch, but I have deemed it advisable to show you clearly that consideration of this all-important subject of the public health has long been the pre-occupation of this Government. Our expenditure alone shows what care we have been taking of it. Here I fancy that Sir Ransford Slater's estimate of what the British West African Colonies are spending on medicine and sanitation is very far below the mark, for the Gold Coast has certainly been spending an average of close on half-a-million pounds a year in this direction for the past few years. It is probable that the expenditure on hospitals, dispensaries and sanitary structures generally, surface water drainage, etc., have not been included in Sir Ransford Slater's figures.

I have, etc.,

F. G. GUGGISBERG,

Governor.

THE RIGHT HONOURABLE

J. H. THOMAS, M.P.,

ETC., ETC., ETC.

III.

DESPATCH FROM THE GOVERNOR TO THE
SECRETARY OF STATE.GOLD COAST.
CONFIDENTIAL.GOVERNMENT HOUSE,
ACCRA,*25th February, 1926.*

SIR,

I have the honour to forward you the proceedings of the third conference of senior Members of the West African Medical Staff which was held at Accra between the 10th and 19th December, 1925.

2. I regard this conference as a most valuable one.

* * *

I am in general agreement with the conclusions at which they arrive, but there are two agenda to which I wish particularly to refer.

3. The proposals made in Agendum No. 1 are the most important of any formulated by the conference, namely the medical training of Africans. The proposals on the whole are excellent, but in drafting the report a mistake has been made which in my opinion and that of my advisers will seriously affect the supply of candidates for the proposed school. On pages 5 and 6 of Agendum No. 1 the conference accepts the principle that early provision should be made for giving a full course of training in medicine, surgery, and public health to African students in Africa, and recommend that "a college should be commenced at the earliest possible date, destined for the complete training of African medical practitioners." This is entirely in accordance with the publicly-stated policy of the Gold Coast Government. Unfortunately, in the remainder of the agendum the conference concentrates entirely on the training of Medical Assistants to such an extent that if I accepted and supported the recommendations made I should rightly be held guilty of breaking a definite pledge to the people of this country. Why this is the case I will endeavour to show. On more than one occasion I have publicly stated that the policy of the Gold Coast Government was to give Africans an opportunity of becoming fully-qualified men and that until we provide the necessary facilities we did not propose to start the training of Medical Assistants. The following is an extract from my Address to the Legislative Council on the 22nd February this year :—

"As I understood before the arrival of the Medical Conference that the subject of the training of Medical Assistants was to form part of their agenda, I took the opportunity when receiving the delegates from the various Colonies on the 11th December last to repeat to them the words I have just quoted. I informed them that this Government had no objection whatever to the training of Medical Assistants; indeed that we considered such a class of medical practitioner was necessary in this country, but that I had pledged my word to the members of this Council that this Government would not support any scheme for the training of Medical Assistants that did not at the same time include provision for the full training of African Medical Officer. It is therefore satisfactory to note that the proposals of the conference contemplate the complete training of African medical practitioners."

You will see from the above that, in addressing the Council, I put the most favourable interpretation on the proposals of the Conference. I believe that it is also the correct interpretation. However that may be it is clear that, if the proposals *as they at present stand in Agendum No. 1* were accepted by this Government, our action would be regarded as a deliberate breach of faith, and not, as the conference probably intended, as the temporary postponement of Government's policy in favour of concentrating, to begin with, on a class of subordinate and not fully-qualified officers. I cannot believe that the conference did this deliberately but none the less, as far as the Gold Coast is concerned, the announcement of the conference's proposals would result in no applicants in this country coming forward for training as Medical Assistants.

This would be nothing short of disastrous, for we are badly in need of officers of the class of Medical Assistants. I desire to make it perfectly clear that we are in favour of the training of these subordinate officers, but that we are totally opposed to such training being introduced without facilities for, or towards the completion of full medical training, being at the same time included in the scheme.

4. So far my criticisms have been of a destructive nature. I will now endeavour to put forward a proposal which is capable of being included in the proposals of the conference, and which will remove all objections to the acceptance of the latter.

It must be, as I and my advisers have always held, a number of years before there can be a medical school completely staffed and equipped in West Africa, and capable of giving a registrable qualification in medicine and surgery. Until education has advanced, there will not be a sufficient number of suitable educated Africans to warrant the establishment of such school. There are, however, immediately available a few Africans so qualified by education, and it should be feasible to make arrangements for the *earlier years* of the full medical training of these men from the moment the proposed school opens. The following is a way that suggests itself to me, and has the support of the Director of Medical and Sanitary Services. The conference proposes that the training of Medical Assistants should take five years, divided into two periods of three and two years respectively. In the first period I understand that the preliminary subjects for a full degree would be taught; even if this is not actually the case, I believe that such arrangements could be made. Students who are successful in passing the qualifying examination at the end of this course, should be given an opportunity of going to Great Britain to continue their studies and to obtain a registrable qualification. In the case of Students belonging to this country who joined the Medical Assistants class for this purpose, and whose progress and character brought them to the notice of the instructing staff, the Gold Coast Government would be willing to provide scholarships to assist some of them in the expenses of their training in Great Britain. Those not so successful would have to pay their own expenses.

I trust that your medical advisers will be able to incorporate some scheme of the above nature in the proposals of the Medical Conference. It would result in our giving the best and most promising of the students an opportunity of gaining full qualifications. It would, pending the time when the Medical School is fully developed, provide reasonable facilities for the perfectly legitimate demand that students of African descent should be given opportunities of becoming qualified medical practitioners. Scholarships would, of course, be given only to the more promising students; those who fail to secure them could either continue their studies with the object of becoming Medical Assistants, or, if their parents so desired, go to Great Britain to continue their studies there at their own expense.

Further, as there appears to be some difficulty in African students getting adequate clinical experience in Great Britain, especially in mid-wifery, they could then return to the West African Medical School, and as African Medical practitioners on full pay, and on the usual period of probation, receive from six months to a year's clinical experience as Assistant House Surgeons or Physicians at such institutions as the Gold Coast Hospital, the Gold Coast Maternity Hospital, or at similar places in other British West African Colonies.

The above proposals cover a period of about the next ten years, during which, the secondary schools of the British West African Colonies would be turning out better educated and better character-trained candidates for the medical profession than is the case at present.

5. I trust that you will be able to endorse the scheme which I have proposed in preference to that contained in Agendum No. 1 of the conference. There is no reason whatever, why the training of Medical Assistants and medical students should not go on side by side, if my proposals are accepted. Before the school is opened for the training of Medical Assistants, however, definite arrangements for its steady expansion into a full medical school should be clearly planned and approved by the governing body, whatever shape you consider, that body should take. I recommend that you should appoint a committee to make further progress in drafting the arrangements for the formation of a medical school on the above lines, and that the general principles involved should receive the approval, from the point of view of Government policy, of the four Governors of the British West African Colonies, before they are submitted to you for your final decision.

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7. In conclusion, while I am in agreement with the proposals made in the Report of the Conference on the other agenda, many of which are already being carried out in the Gold Coast, I desire most earnestly to urge the importance of my remarks in paragraphs 3 to 5 above. The proposals of the conference with regard to Medical Training, involving as they undoubtedly appear to do, the side-tracking of full training and the substitution therefor of partial training as Medical Assistants, strike at the very root of the main policy of this Government, which is to provide opportunities for Africans to qualify for any appointment in the Government Service. Whether they will succeed in doing so depends on their own exertions, but after Government has once stated such a policy it cannot, as I am sure you will agree, go back on it.

I have, etc.,

F. G. GUGGISBERG,
Governor.

THE RIGHT HONOURABLE

L. S. AMERY, M.P.,

ETC., ETC., ETC.

ENCLOSURE TO No. III. (GOLD COAST CONFIDENTIAL OF
25TH FEBRUARY, 1926).

PROCEEDINGS OF THE THIRD CONFERENCE OF THE
SENIOR MEMBERS OF THE WEST AFRICAN MEDICAL
STAFF FROM THE COLONIES OF NIGERIA, THE GOLD
COAST, SIERRA LEONE AND THE GAMBIA.
DECEMBER, 1925.

MEMBERS OF THE DELEGATION :

- Dr. D. Alexander, C.M.G., The Director of The Medical and Sanitary Service, Nigeria.
- Dr. M. E. O'DEA, The Director of The Medical and Sanitary Service, Gold Coast.
- Dr. W. D. Inness, The Director of The Medical and Sanitary Service, Sierra Leone.
- Dr. T. B. Adam, Deputy Director of The Medical and Sanitary Service, Nigeria.
- Dr. O'Hara May, Deputy Director of The Sanitary Service, Sierra Leone.
- Dr. G. J. Pirie, Deputy Director of The Sanitary Service, Gold Coast.
- Dr. W. S. Clark, Deputy Director of The Sanitary Service (acting) Nigeria.
- Dr. A. Connal, Director of The Medical Research Institute, Nigeria.
- Dr. A. S. Burgess, Director of The Medical Research Institute (acting), Gold Coast.
- Dr. J. W. M. Pollard, Assistant Director of Medical Service, Nigeria, representing The Gambia.
- Dr. C. V. Le Fanu, Specialist, Gold Coast.

* * *

AGENDUM No. I.

TRAINING OF MEDICAL STUDENTS AND MEDICAL ASSISTANTS.

Condition in
West Africa

The conditions in West Africa which call for remedy are much the same in each of the Colonies and Protectorates and also the same as are found in the different countries of French West Africa. Depopulation has occurred by inter-tribal slave raiding and strife as well as by disease. The latter cause is alone operative now and is delaying recovery throughout the countries as a whole, and causing depopulation to extend in some areas. The average density of population varies from about 12 to 150 per square mile, and may safely be said to be considerably below that which the soil and resources of the countries can support. The people of the country are naturally fertile, but this is widely and seriously impaired by venereal disease, and to this is attributed the low birth-rate, which is assumed from experience to be the case. The infant mortality is known to be high, as also the general death rate, and of late years epidemics have swept over large tracts of country causing deaths running into hundreds of thousands, in area after area. The health of the people as a whole is a long way below what it should be, and in many areas the bulk of the population is C₃, probably due in part to nutritional deficiency.

These conditions are largely preventable, but in order to bring into operation the modern means for combating disease and improving health, a very large staff of skilled workers is required. It is impossible to meet this need by increasing the European highly-skilled staff, for they could never be recruited in sufficient numbers, nor could Governments afford to meet the cost.

Conditions largely preventable.

At the same time it must be recognized that we have among the African people, a sufficiently large proportion of intelligent youth, both male and female, capable of absorbing the necessary scientific knowledge and of becoming skilled in its use. The problem therefore resolves itself into one of the organisation and development of facilities for training the African youth in the different branches of activity required.

Intelligent youth available for training.

The different classes of training staff required are :—

Classes of Staff.

- (i) Qualified Medical Officers.
- (ii) Qualified Medical Officers holding a Public Health Qualification.
- (iii) Medical Assistants.
- (iv) Sanitary Inspectors (with Certificate of Sanitary Institute).
- (v) Sanitary Inspectors (Graded Staff).
- (vi) Dispensers.
- (vii) Laboratory Attendants.
- (viii) Nurses.
- (ix) Midwives.
- (x) Health Visitors.

Under Agendum No. 1 are considered classes (i), (ii) and (iii). Agendum No. 2 includes (vi), (vii), (viii) and (ix). And the remaining classes (iv), (v) and (x) come under Agendum 3.

There is, undoubtedly, a pressing need, daily becoming more urgent, for the formation of a staff of African Officers to supplement the present medical service, and after careful consideration it is agreed that the training for this staff must be provided in West Africa.

Pressing Need.

It is apparent that the development of a Medical College providing a full curriculum of instruction will take a number of years. Nevertheless, a College should be commenced at the earliest possible date, destined for the complete training of African Medical practitioners.

The reasons why a complete College should be established in Africa are :—

Reasons for College in Africa.

- (i) Colleges in Great Britain cannot be expected to deal with the large numbers that will be required, and we hope will be forthcoming, if the service is to have anything like a wide distribution.
- (ii) Many students could afford a local course who cannot face the heavy expense in Great Britain, and with comparatively small assistance from the various Governments, the local College should have, in a short time, a large number of students.
- (iii) Training in Africa, with students in hostels under suitable House Masters, makes it possible for character training to go on *pari passu* with the study course. This character training is an absolute essential to reliable service when study is completed. In Great Britain, African Students are brought into contact with conditions which they are wholly unprepared to meet.

- (iv) The training of Africans in Wards and in maternity work in Great Britain, is not a fair proposition. There is constant difficulty in letting them have adequate clinical work, owing to differences which are entirely racial. On the other hand training in Africa, has the advantage that the clinical teaching is on the diseases amongst their own people, and under the conditions which they will subsequently deal with as practitioners.
- (v) The cost of Government will be less in salaries.

Training
African
Students in
Africa.

It is therefore essential, if any real progress is hoped for, that early provision should be made for giving a full course of training in medicine and Surgery and Public Health to African students in Africa.

Medical
Assistants.

The aim is to provide training for the full course, but the immediate necessities of the case demand the training of a staff of Medical Assistants, the course for whom would neither be so long, nor so complete. It is proposed that a College be erected, and teaching provided which should be of a sufficiently high standard, up to and including Anatomy and Physiology, to satisfy the requirements of a full medical course, and should occupy not less than three years. Superimposed on this there should be a two years' course devoted to the study of medicine, surgery, and particularly preventive medicine. On completion of these two years a final examination would be held and those who pass should be employed as Medical Assistants in the service of the Government only. When the College is fully developed, it should be possible for those Medical Assistants to return and complete a recognised medical course commencing with the subjects for the third examination, and to obtain a diploma or degree recognised throughout the British West African Possessions. The Conference considers that the Colonies should usefully absorb from 30-50 training staff each year.

Candidates.

The question now arises—can a sufficient number of Africans be obtained with the necessary preliminary education? There is no doubt that secondary education lags behind, but this is being remedied very rapidly and it is believed that as many suitably educated candidates will be available as can be dealt with in the first instance. It is nevertheless necessary to ensure, by providing adequate teaching, that the scientific groundwork is satisfactory, and it is evident this has been done by the French in Dakar.

Groundwork
in science
and Mathem-
atics

This is also in line with modern practice in Great Britain where no student is registered as a medical student until he produces satisfactory evidence that he has a good groundwork of science. With assistance from Government, Mission Secondary Schools could really be raised to the requisite standard. The supply of suitable candidates depends entirely on the development of the secondary schools, and on the agreed acceptance of a higher standard of education than exists at present.

Need for
local
trained staff.

It is considered that the need is for locally-trained Medical men and while, by affiliation, it should be made possible for them to take, either here, or in England, a final examination giving empire recognition, it should be understood that no obstacle is contemplated, nor will be put in the way of any individual student who desires to proceed to England for the completion of his course, or for the whole medical training.

Suitable
Salaries for
Medical
Assistants.

In order to make the service attractive and to ensure the uninterrupted flow of suitable candidates for Medical Assistants in sufficient numbers, adequate inducements must be held out from the beginning. The salaries paid to these officers should be £240-12-480.

The Conference is of the opinion that the Gold Coast offers the best facilities for establishing such a Medical College and students from other West African Colonies should be sent to it for training.

Special legislation will be required to provide for the establishment of a central Governing Board in the Gold Coast with representatives from each Colony. This Board should be empowered to grant, withhold, or withdraw licences, certificates of registration, Diplomas and Degrees. It should be charged with the responsibility for regulating the standard of preliminary education, entrance examinations, intermediate and final examination and for arranging the curricula of study and the range of syllabus for each examination.

It should further be charged with the responsibility for the establishment of registers. It should be a duty of the Board to meet not less often than once a year.

Legislation will be required in each Colony to provide for penalties for persons falsely holding themselves out to be registered or licensed by the above Board.

The Governing Body will determine what buildings may be required, but the following may be forecasted as a probable estimate :—

- (1) 4 Lecture Rooms
- (2) 1 Laboratory for Pharmacy and Chemistry
- (3) 1 Laboratory for Biology
- (4) 1 Laboratory for Physiology
- (5) 1 Dissecting Room fitted with Cold Chamber
- (6) 1 Pathological Department
- (7) 1 Museum and Library
- (8) 1 Students' Reading Room
- (9) Recreation ground should be provided in the grounds.
- (10) A Hostel is essential and should provide accommodation for 150 students. This should consist of houses, each house having accommodation for a housemaster who should be drawn from the Lecturers and Demonstrators.
- (11) Quarters for European Staff and African Employees.

The estimates for these buildings should be prepared by the Public Works Department of the Gold Coast, in conjunction with the Director of the Medical and Sanitary Services and Deputy Director of Sanitary Service of the Gold Coast.

It is advisable that a thoroughly good and capable man be appointed as Dean and his advice be sought in the selection of the staff to work with him. It should not be expected that the staff for systematic teaching be supplied by the West African Medical Service, though they may supply clinical teachers.

Staff.

Staff required :—

- 1 Dean—taking general administrative control and lecturing on a systematic subject.
- 4 Lecturers.
- 3 Demonstrators.
- 1 Janitor.

General Employees—Cooks, Labourers and Attendants, etc.

It should be arranged, if possible, that the leave of the European Staff should fall in the long vacation and so avoid the necessity for duplication for reliefs. Probable Recurrent Expenditure including recommended salaries :

Dean	£1,600	and duty Allce.	£320	Recommended Salaries.
4 Professors @	£1,400	" " "	£280	
2 Lecturers @	£1,000	" " "	£200	

2 Lecturers @	£800	and Sen. Allce.	£80
1 Demonstrator and Asst. Lecturer Anatomy	£720	and Sen. Allce.	£72
2 Demonstrators	£500-£600		
1 Janitor..	£400		
Employees	£1,000		
Current supplies—technical and other—£1,000.			

The probable running cost in the early years may be £17,500 per annum, which is exclusive of diets and provisions for the hostel.

The estimate of equipment must wait upon a detailed plan, but would not be likely to be less than £10,000 in the first instance.

Fees should be charged for the Course and for the examinations and should be fixed by the Board of Governors.

Arrangements should be made whereby Governments may place students, pay their fees, and grant them subsistence at a rate to be fixed by the Board of Governors.

Great assistance will be rendered to the start and running of the College if each Government can see its way to provide for, from one to two scholarships each year, or at such intervals as they may consider desirable as possible. These scholarships should be awarded after competitive examination of a suitable standard to candidates recommended by their schools. Each scholarship should provide an annual sum payable for five years, sufficient to cover fees, reasonable cost of living and cost of books, etc. The amount of the scholarship will depend on the scale of fees fixed by the Board of Governors.

The scholarship should be payable only to the Dean of the College in trust for the student, and the Dean should be authorised to deduct the College and examination fees and pay the remainder in monthly instalments to the student. Should the student fail to satisfy or to continue his studies, the balance should be returned to the Government concerned.

Revenue

It is impossible to forecast the probable revenue as this will depend entirely on the number of paying students.

Women Students

The opening of the College to women students should await the demand.

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M. E. O'DEA, *Chairman.*

D. ALEXANDER, and others.

IV.

LETTER FROM THE GOVERNOR OF NIGERIA TO
THE GOVERNOR OF THE GOLD COAST.

No. 11334/153.

GOVERNMENT HOUSE,

NIGERIA,

1st July, 1926.

SIR,

I have the honour to forward herewith, for Your Excellency's information, a copy of a despatch which I have addressed to the Secretary of State for the Colonies on the subject of the training of African Medical Officers and Medical Assistants.

I have, etc.,

H. M. M. MOORE,

*Governor's Deputy.*HIS EXCELLENCY THE GOVERNOR,
GOLD COAST.

ENCLOSURE TO NO. IV.

NIGERIA.

GOVERNMENT HOUSE,

No. 603.

NIGERIA,

29th June, 1926.

SIR,

I have the honour to refer to your despatch No. 1299 of the 12th of October, 1925, forwarding copies of a despatch from the Governor of the Gold Coast regarding certain problems of medicine and sanitation and the proposed policy of that Government for the future training of African Medical Officers. The scheme put forward in that despatch, provided for the establishment at Achimota College of chairs for all those branches of higher education, which form the preliminary to a full medical training, and for the construction at Korle Bu of a medical school at which, candidates for the medical profession who had qualified at Achimota in the preliminary subjects for medicine, could receive training not only as Medical Officers but also as Medical Officers of Health, and obtain a medical degree recognized by the British medical authorities.

2. The training of medical students and medical assistants was one of the most important subjects discussed at the recent Accra Conference, and in Agendum No. 1 of the Conference, the provision of a Medical College to serve the needs of all the West African Colonies has been recommended very much on the lines of the Korle Bu medical school. The main difference between the two schemes appears to be that, whereas Sir Gordon Guggisberg's scheme contemplated turning out a certain number of fully qualified Medical Officers from Korle Bu from the outset, the Accra Medical Conference considered the need for a trained staff so urgent and immediate that a grade of Medical Assistants should be created, for which a candidate might normally expect to qualify after five years training, returning later, as the College fully developed, to complete a recognized medical course, at the termination of which, he would, if successful, obtain a diploma or degree recognized throughout the British West African Possessions.

3. I desire at once to record my cordial approval of the proposal to create a central Medical School or College, to serve the needs of all the West African Colonies, and I agree with the members of the Accra Conference that the Gold Coast offers the best facilities for establishing such an institution. At the same time I am emphatically of opinion that from the outset, any such college should aim at turning out fully qualified medical officers with a degree recognized by the General Medical Council, and not merely content itself for some years to come with turning out a grade of partially-qualified Medical Assistants.

4. I am aware that in the Gold Coast special political considerations exist, which in the Governor's opinion render it undesirable to start the training of Medical Assistants until the Government is also ready to provide the necessary facilities for training Africans to become fully qualified Medical Officers. I do not consider that these considerations apply with the same force to Nigeria, while on the other hand the need for trained staff is so pressing, that I would be reluctant to see the training of Medical Assistants abandoned merely because no candidates were forthcoming, with the requisite educational qualifications to enable them to take the full Medical Officers' course with any reasonable chance of success. The fact is that at present the general standard of education in Nigeria is so

low, that I fear that for some time to come we are not likely to have many lads sufficiently well-educated to enter such a Medical School or College at all. In this connexion the Director of Education, Southern Provinces writes as follows :—

“ The number of Africans with adequate preliminary Training for a Medical College who could be found in Nigeria is exceedingly limited. The average number of boys who attain the Standard of the ‘ Senior Cambridge Local ’ each year is 7, and it is unlikely that more than 1 or 2 of that number would wish to enter the projected Medical College. Steps are, however, being taken to develop the teaching of science at King’s College, and when this has been done the number of suitable students should increase. The general standard of education in the Gold Coast is, I suppose, considerably higher than in Nigeria, for if the proposed College were dependent on this country for suitable candidates, I am doubtful whether it could be a success.”

5. While therefore I consider that from the outset the College should aim at turning out fully-qualified medical men, I do not advocate that because this may not be possible for some time, no steps should be taken to provide training for a grade of Medical Assistants immediately. I should add that as an earnest of the interest shown by Government in encouraging Nigerian lads to qualify in medicine, I have recently appointed a Committee under the Chairmanship of the Lieutenant-Governor of the Southern Provinces to draw up regulations, tenable at one of the Universities. It is suggested that the Cambridge School certificate should be regarded as the qualifying test, and that the scholarship should be awarded on the results of a competitive examination, subject to final nomination by the Scholarship Committee. This scholarship would not be confined to candidates intending to enter the medical profession, though every encouragement would be given to such candidates to come forward, and it is thought that in this way pending the creation of a West African Medical School, a limited number of the more promising lads would be enabled to obtain full medical qualifications.

8. In conclusion, I consider that, before embarking on so important and expensive a project as the foundation of a central Medical College for the whole of West Africa, the details of any such scheme should be most carefully reviewed in the light of actual experience gained in the running of similar institutions in India and the Eastern Colonies, and for this reason I endorse the recommendation, which I understand Sir Gordon Guggisberg has already made, that you should appoint a representative Committee to draw up a detailed scheme for the formation of such a school.

I have, etc.,

H. M. M. MOORE,

Governor’s Deputy.

THE RIGHT HONOURABLE

L. S. AMERY, M.P.,

SECRETARY OF STATE FOR THE COLONIES,

ETC., ETC., ETC.

DESPATCH FROM THE SECRETARY OF STATE TO THE GOVERNOR.

GOLD COAST.DOWNING STREET,
8th August, 1927.

CONFIDENTIAL.

SIR,

I have the honour to invite your reference to Sir Gordon Guggisberg's confidential despatch of the 25th of February, 1926, and to inform you that I have taken advantage of the presence in this country of Sir Graeme Thomson, Sir Gordon Guggisberg, Dr. Alexander, and Dr. Inness to discuss with them more fully, than would have been possible by correspondence the proposal contained in agendum No. 1 of the proceedings of the 1925 Conference, of senior members of the West African Medical Staff, that a Medical School should be established in the Gold Coast, "destined for the complete training of African medical practitioners."

2. If the medical needs of the West African Colonies are to be adequately met, it is essential that facilities for the training of African doctors should be made available in West Africa, and I concur in the view that the time has come when the possibility of preparing a concrete scheme should be investigated. The proposals put forward by the Conference were necessarily general in character; the details will require to be carefully worked out and in my judgment this can best be done by a Committee sitting in the Gold Coast, where I agree that the School can most conveniently be situated. I accordingly accept the suggestion that a Committee should be appointed for this purpose, and I propose that it should, if possible, assemble in November next, the actual date being fixed by mutual arrangement between the Governments concerned.

3. At the discussion with the two Governors and the Heads of the Medical Departments, it was pointed out that it would be impracticable to set up at once, any form of Medical School whose teaching would be recognized by the General Medical Council, as qualifying successful students for registration in this country. The policy of the General Medical Council has been, to allow medical teaching at Colleges to operate for a considerable time and to institute numerous enquiries into the nature of the instruction and the general standard of the attainment reached by the students, before deciding to admit the qualification as sufficient to enable its holder to obtain the privilege of registration in the Medical Register of the United Kingdom. I am not in a position to take any steps to induce the Council to modify this very reasonable attitude in the case of a medical school, to be established in West Africa, but I see no reason why the Medical College in Accra should not aim from the start at providing a medical education, which will eventually fully satisfy the requirements of the Council, so that in future its graduates may become qualified for general registration. In the meantime, it should be possible to establish a School giving instruction up to the highest possible standard, with power to grant a licence or diploma, which will be recognized in the West African Colonies, as entitling

its holder to local registration as a medical practitioner, in which event he will be on precisely the same footing as a medical man who has obtained qualifications in this country, so far as the West African Colonies are concerned.

4. In the present circumstances it will not be possible to institute a Medical College giving a full five or six year-course of study, and find at once students ready to take each stage of the course. It will, however, be possible to make a beginning by providing instruction to cover the first year, during that year to make arrangements for the second year course of study, and to proceed with obtaining the staff for the third, fourth and subsequent years, as they may be required. In other words, the Medical College will grow up gradually, though steadily, and the first batch of qualified students should be available in about six years from the commencement of the Institution. The Committee will no doubt bear this in mind and will frame their proposals accordingly on the basis of expansion year by year.

5. The Chairman of the Committee should, I think, be the Colonial Secretary of the Gold Coast. The Directors of the Medical and Sanitary Services in Nigeria, the Gold Coast and Sierra Leone (or their representatives if they are themselves prevented for any reason from attending personally) will naturally be members, but I do not consider it necessary that the Gambia should be separately represented, unless the Governor of the Gambia particularly desires it. It is important that in drawing up a scheme, the Committee should bear in mind the educational questions involved, and for this purpose I suggest that Mr. A. G. Fraser, the Principal of the Prince of Wales' College at Achimota, should also be included. I understand that Sir Graeme Thomson does not propose that an education officer from Nigeria should attend in addition to Mr. Fraser, but I have informed the Governor of Sierra Leone that I shall have no objection to an education officer from Sierra Leone being added if he considers it desirable. I shall also endeavour to arrange for an officer who has had experience of the organisation and development of the medical schools in Malaya, or Hong Kong, to assist the Committee in its deliberations. You will no doubt be able to arrange for technical advice on such matters as the design and cost of the necessary buildings, etc., to be made available for the Committee and for a competent secretary to be provided from the Gold Coast Secretariat.

6. The Terms of Reference to the Committee should, I suggest, be as follows:—

“ To draw up a scheme for establishing in the Gold Coast a medical school, whose diploma will be admitted to recognition in the four British Colonies in West Africa: to advise as to the standard of education required of entrants to the school: to prepare conditions under which partial training will be recognized as qualifying students for appointment as medical assistants: to make recommendations regarding the staff required and their salaries, and the buildings which will be needed: and to submit estimates of the capital cost and annual expenditure required to give effect to their proposals.”

7. Under these terms of reference the Committee will be required to consider the question of the training of medical assistants. Such training will no doubt consist, generally speaking, of the earlier stages of the ordinary medical curriculum, which is taken by all students who study for complete medical qualifications, and can therefore be naturally and conveniently given at the medical school in conjunction with the complete diploma course: but I desire to make it clear that there is no

ntention that the training of medical assistants as distinct from qualified medical practitioners, should be undertaken in the Gold Coast alone : there is a crying need for African medical assistants in all the West African Colonies, and while it will always be open to any Colonial Government to send students to the Gold Coast for training, the difficulties in the way of obtaining candidates in the other colonies who are able and willing to be trained for appointments as medical assistants, will be largely increased if no facilities for local instruction are provided. I have accordingly recently approved a proposal made by the Governor of Nigeria that a school for the training of medical assistants should be established in the Northern Provinces of Nigeria, and I shall be ready to consider any further schemes of a similar kind whether in Nigeria or elsewhere.

* * *

I have, etc.,

(for the Secretary of State),

W. ORMSBY-GORE.

GOVERNOR

SIR A. R. SLATER, K.C.M.G., C.B.E.,
&c., &c., &c.

VI.

DESPATCH FROM THE GOVERNOR TO THE
SECRETARY OF STATE.

GOLD COAST.

CONFIDENTIAL (A).

GOVERNMENT HOUSE,

ACCRA.

2nd September, 1927.

SIR,

With reference to your Confidential Despatch dated the 8th August, 1927, on the subject of the proposal to establish a West African Medical School in the Gold Coast, I have the honour to confirm my telegram of the 25th August which reads as follows :

“ With reference to your Confidential Despatch of the
“ 8th August, Medical School, I desire to make following
“ representations. First I have arranged for Thomas who
“ has been out 12 months to proceed on leave by steamer
“ of August 26 in order that he may return to deal with draft
“ estimates and obtain some knowledge of local affairs before
“ April when with your permission I contemplate taking leave.
“ Secondly November and December are the months in which
“ Heads of Departments in all West African Colonies are most
“ busily engaged in final preparation of draft estimates. Thirdly
“ Inness is new to conditions here and value of his advice
“ as member of Committee would be much increased if he had

" more time in which to obtain local knowledge; also as
 " member of Committee he could not devote much attention
 " to his draft estimates. Fourthly A. J. R. O'Brien will be on
 " leave in November and I regard his advice as essential.

" In the circumstances may I be allowed to suggest that
 " the Committee should meet in March after estimates have
 " passed and Colonial Secretary could preside. This date also
 " would allow more time for preliminary consideration. As
 " alternative may I venture to suggest in view of great
 " importance of subject that Committee should assemble in
 " the early summer of 1928 with your chief medical adviser
 " or other officer of Colonial Office or some outside Medical
 " Officer of standing such as Andrew Balfour as Chairman.
 " This Colony would willingly defray portion of expenses of
 " appointing such chairman and I feel sure that other West
 " African Colonies would do same. If neither suggestion
 " acceptable Thomas will return here early in November if
 " fit."

The necessary action will be taken on receipt of your reply.

2. I venture to suggest the following addition to the terms of reference:—

" To advise when there is likely to be a sufficient number
 " of suitably educated Africans to warrant the establishment
 " of a Medical School capable of giving a registrable qualification
 " in Medicine and Surgery."

In this connexion I invite reference to paragraph 4 of Sir Gordon Guggisberg's Confidential Despatch of the 25th of February, 1926 forwarding a copy of the proceedings of the third conference of senior members of the West African Medical Staff held at Accra in December, 1925.

* * *

I have, etc.,

A. R. SLATER,
Governor.

THE RIGHT HONOURABLE
 L. S. AMERY, M.P.,
 &c., &c., &c.

VII.

TELEGRAM DATED 17TH OCTOBER, 1927 FROM THE
 SECRETARY OF STATE TO THE GOVERNOR.

With reference to your Confidential Despatch of 2nd September
 (A) Medical School proposal approved.

ORMSBY-GORE.

APPENDIX II.

(A)

*Letter from Dr. H. O'Hara May, Deputy Director of Sanitary Service,
to the Director of Medical and Sanitary Service.*

CONFIDENTIAL.

No. 4164/65/1927.

DEPUTY DIRECTOR OF SANITARY SERVICE,
P.O. Box No. 118,
ACCRA,
3rd November, 1927.

CONFERENCE REGARDING MEDICAL COLLEGE, ACCRA.

With reference to the above I have the honour to inform you that any remarks I would make on this subject would be of a destructive rather than a constructive kind.

2. In my humble opinion after more than 20 years' experience in West Africa the time has *not* come for a Medical University in West Africa as outlined by the Secretary of State in his Confidential despatch of 8th August, 1927.

3. I do not presume to insinuate that there are not plenty of youths with the necessary brains and ability to become qualified medical men, but I do maintain there are very few, if any, with sufficient character training to enter such a noble profession (with so many opportunities for good or evil), and be let loose amongst their—shall we say less—fortunate brothers and sisters.

4. It is probable, however, that the time for such an University as regards character training, and a standard of education absolutely essential before entering a medical school, is in the dim distance. I refer to the material now being trained as a kindergarten class at Achimota; but until some such material is available, it would appear to me that the Conference, whilst outlining the needs, expense, curriculum, etc., etc., for an immediate university, should for the present be content with a school on the lines of the Dakar Medical School. This school I was informed was not affiliated with any French University nor apparently had it any wish to give degrees that would allow its students to practise medicine and surgery anywhere but amongst their own people under supervision.

5. Whilst at Dakar and also in other French Colonies with the League of Nations we had the opportunity of seeing some of the results of their training; whether we were only shown the best or not one cannot say, but a very high standard of intelligence was noticed in all cases, for example—one morning whilst going round the wards in Dakar Hospital a new patient was brought in and a 2nd or perhaps 3rd year's student was told off to examine this patient in front of us. This he did

in a most practical and systematic manner, and wrote down the results of his various examinations, which when finished were read out to us and we were able to verify for ourselves, and I have no hesitation in saying that the clinical notes on this case were a very creditable effort and shewed that careful teaching had not been in vain.

6. The success of the Dakar scheme is due I think to:—

- (a) Applicants for the medical school must have three years preliminary education at Goree (irrespective of their present standard of education).
- (b) All this time and during their medical course they are under the strictest moral and character discipline.
- (c) The successful ones are guaranteed an adequate salary with prospects of promotion and pension.
- (d) They are all absorbed in Government Service.

7. In conclusion, Sir, whilst being all for an university when the time is ripe, I personally would like to see the movement started on the lines of the Dakar school in such a manner that if and when the proper materials are available it should develop into an University capable of being affiliated with some English Medical School and conferring proper degrees.

8. The advisability or otherwise of letting loose on the West African public a shoal of qualified men who will in all probability never be able to make a living is debateable.

HY. O'HARA MAY,
Deputy Director of Sanitary Service.

(B)

Letter from Dr. A. J. R. O'Brien, Surgical Specialist, to the Director of Medical and Sanitary Service.

ON BOARD M.T.S. "ACCRA,"
12th September, 1927.

MEDICAL SCHOOL ACCRA.

SIR,

I have never seen the scheme for the medical training of Africans put up by the Senior Medical Officers of West Africa at their last Conference.

2. I would refer you to a scheme put up by me in February, 1924. That was for partial training in West Africa and completing the course at home.

3. I understand the Conference advised a School for what they term "Medical Assistants." This I presume would mean training for positions similar to those held in India by "Sub-Assistant Surgeons."

My experience gained during the war is that the "Sub-Assistant Surgeon" is really no more than our well qualified dispenser or highly trained nurse. He is useless for the purpose of taking the place of, and is only capable of working under the immediate supervision of a medical Officer. No such person should be turned loose on the African public. He would abuse his position and be a public danger. We are much better without them.

4. We already train sanitary inspectors, nurses and dispensers, and our standard of efficiency for these is yearly becoming higher.

5. In establishing a Medical School at Accra we should aim at the highest. If we once label such a School as a subordinate one and set a low standard, it will get a bad reputation. Well educated Africans will not go to it and will prefer to go to England. Give a Medical School a bad name and you never live it down.

6. Our object should be to turn out West African medical officers who will be able to join a Government Service or go into private practice in their native countries. Entry into a Government Service could be competitive.

7. Unless a medical man knows his work he is a danger to the public. Half-trained medical assistants are in my opinion useless. I feel very keenly on this subject, and am convinced that it were better to leave matters alone than create a "Subordinate Service."

8. In the scheme put forward by me in February 1924, I only made provision for three or four years training on the Gold Coast. The candidates after that were to proceed to England to obtain their degrees. The standard of teaching was to be such that it must be recognised by a body in England conferring medical degrees. The teachers themselves would also have to be recognised.

9. A complete scheme for a full course and the conferring of degrees in West Africa could easily be worked out. I presume this is what the Government aims at. It would not then be necessary to have recognition by a body conferring degrees in England, but the standard laid down by the General Medical Council for training for medical degrees should be adhered to.

10. Inspection and advice from the General Medical Council should be invited.

11. It will be impossible to train men for a subordinate service and for a good degree in the same school. There seems to be some confusion over this point and the Government should make up its mind to go for one thing or the other. They cannot do both in the one institution.

12. As regards getting suitable candidates for medical training I consider Achimota College will provide these. The preliminary subjects—Chemistry and Physics—can also be taught there.

Arrangements should be made in other West African Colonies to aim at a high standard of teaching to enable candidates to pass an examination equivalent to the matriculation examination for medicine in the English and Scottish Universities.

If they cannot do this provision should be made to take pupils from other West African Colonies into Achimota.

13. A scheme for conferring medical degrees in West Africa will be a costly one. If the Government does not consider the expenditure justifiable, I strongly urge that they drop the matter until they can afford the best.

- (i) Highly paid professors would be required in all the subjects of medicine and surgery, viz.:—Biology, Anatomy, Physiology, Materia Medica and Therapeutics, Pathology and Bacteriology, Surgery, Medicine and Midwifery and Gynaecology.

- (ii) Suitable lecture rooms and laboratories would have to be constructed.
- (iii) The Gold Coast Hospital would require enlarging and several special departments added. The staff of this Hospital would consist of some of the professorial staff of the College of Medicine, and specialists in the subjects they were to teach clinically. These specialists would have to be obtained from the teaching schools of England and Scotland. There are few medical officers in West Africa qualified to hold appointments in a teaching school and hospital.

14. I am not working out a curriculum in detail. That can be done later.

15. May I presume to repeat :

- 1. Aim at the highest we can.
- 2. If the highest is too costly wait until West Africa can afford it.
- 3. If it is decided to go ahead begin at once to look for your hospital staff who are to do clinical teaching.

16. If I have not made myself quite clear I apologise. This paper was written hurriedly on board between Accra and Sierra Leone.

I have, etc.,

A. J. R. O'BRIEN.

THE HONOURABLE ACTING D.M.S.S.,
ACCRA.

(C)

*Letter from Dr. W. A. Young, Director of Medical Research Institute,
to Director of Medical and Sanitary Service.*

CONFIDENTIAL.

No. 148/1927-28.

MEDICAL RESEARCH INSTITUTE,

P.O. Box 300,

ACCRA,

3rd November, 1927.

PROPOSED MEDICAL SCHOOL, GOLD COAST.

There are two points of view :

- (1) The teacher's
- (2) The student's.

1. I welcome the idea of a Medical School for one very good reason, and I am presuming that the Medical Officers most qualified to do so will act as teachers, in the early stages of the School's career at any rate.

This reason is that one never realises how much or how little of a subject one knows until one lectures on the subject or teaches it practically. Therefore the act of teaching has the most beneficial effect of increasing the efficiency of the West African Medical Staff.

It might be as well to have permanent lecturers for each subject taught, but the assistant lecturers might be changed at intervals with the result that a large number of Medical Officers (suitable, of course) would naturally benefit and so the Colony as a whole.

Teaching makes, or should do so, one read widely and deeply and makes one more exact in detail.

But it must always be remembered that however book-learned a man may be, he is not much good without experience, but if a man has experience then teaching will force him to supplement his experience by wider reading and so make his mind become more orderly and thus force him all round to have a better grasp of his subject.

Teaching will thus have a tremendous beneficial effect on the members of the West African Medical Staff. Most of the members are "good" men, but there are none who could not be "better."

THE STUDENTS.

2. Until the school becomes widely appreciated by the masses and so the number of students become large, the cost to produce a few fully qualified men would be great. Neither the student nor the Government assisting him could tackle the experiment without great waste on the Government's part.

(b) The first step therefore is one of caution. Caution suggests that the school should start first of all with the idea of producing medical assistants and as it progresses so the necessary facilities for producing a qualified medical officer will evolve. I think it utterly wrong to allow anyone even if he only practise in his own Colony to assume the rights and privileges of a fully qualified medical man unless he has shown himself to have reached such a standard. In other words to make either the syllabus easy or the standard of pass low is wrong.

From the start, therefore, the curriculum should be a good and sound one, medical assistants being allowed to pass on a lower figure. Medical assistants would not require, to take all the subjects required by a man who intended to qualify as a medical.

Again if a medical student showed inability to reach the standard required he could still pass out as a medical assistant.

(c) It is necessary to define "medical assistant." Possibly many of our best dispensers and dressers with years of experience would make very good medical assistants, and I think as they have borne the heat and burden of the day such should be considered when the first lot of medical assistants are created.

A medical assistant should in the main be a practical man but understand the theory of his practising. He should have a good general knowledge of anatomy. (He need not know embryology as a science). In physiology he should know in a general way the functions of the various organs of the body, but there is no need for him to be able to trace a nerve impulse from the big toe to the cerebellum—though he should know that the anterior cord is mainly motor and the posterior mainly sensory.

Materia medica he should know, I think, in detail.

Pathology should be taught to him in such a way that he has some idea of the relationship between symptoms and the morbid change causing such symptoms.

It is not necessary for him to diagnose a microscopic specimen.

Bacteriology.—Again general principles only.

In Surgery and Medicine.—He should receive such training that all the simpler ailments he should recognise easily but he should be taught the tropical diseases in more detail. There is no need for him to recognise disseminated sclerosis, but there is need for him to recognise dysentery—

plague—Smallpox—a distended bladder due to stricture—a fracture—and difficult but especially necessary, the case that requires immediate operation even though he does not know the cause.

Above all he must be able to give intravenous injection of N.A.B. for yaws. Tropical sanitation should have a high standard pass.

I presume that the necessary knowledge of physics—chemistry—botany and zoology will have been acquired at Achimota. This does not mean that as full a course as possible should not be taught. On the contrary, a complete medical course should be taught to include any possible real medical student but for the medical assistants examination; the above suggestion would decide the standard of efficiency and pass required.

(d) A medical assistant should thus be a person who has sufficient useful and practical knowledge to prevent his being a quack and to enable him to overcome as far as is possible his ju-ju ideas so that he can go amongst the illiterate natives and not abuse his knowledge nor trade on the bush natives' ignorance. He should understand the meaning of "playing the game" and no man, however brilliant, should be made a medical assistant whom, it is recognised, would hinder rather than help the cause of medicine in the bush.

NATURE OF WORK.

Such medical assistants would be in residence at some large native town and these places should be periodically visited by a qualified travelling medical officer, *e.g.*, medical assistants might be placed at Mampong, Ejura, Attebubu, Prang, Yeji, and be visited at least once a month by the medical officer, Salaga.

They would report at once anything suggesting the outbreak of any epidemic. They would supervise sanitation and be responsible for such work.

SCALE OF PAY.

I do not know sufficient of this aspect but I do suggest they be put on a rising, but long, grade. This encourages a man to behave for a long time and in the end will get accustomed to being a good officer. His pay should be such as to give him local standing and he should be debarred entirely of anything of the nature of private practice—though there is no reason why his wealthier patients should not pay for medicine, especially N.A.B.

I have not put up any detailed scheme or syllabus for a course in bacteriology, protozoology and pathology; that can be done when required.

Meanwhile, success to the deliberations of the Committee.

W. A. YOUNG,
Director, Medical Research Institute.

THE HONOURABLE
DIRECTOR OF MEDICAL AND SANITARY SERVICE,
ACCRA.

(D)

Letter from Dr. E. M. Franklin, Senior Medical Officer, to the Director of Medical and Sanitary Service.

No. 1101/I/26-27.

MEDICAL DEPARTMENT,
KUMASI,

8th November, 1927.

With reference to your Confidential Memo. 55/20 of 1st November, 1927, I have one suggestion to make with reference to the question of the preliminary or entrance examination. In my opinion this should be the equivalent to the matriculation examination of the English Universities. I have found in dealing with the subordinate African staff on many occasions what is taken as laziness, unwillingness or even insubordination, is rather a failure to understand completely what is required, owing to an indifferent acquaintance with English.

More especially if the recommendations contained in the Secretary of State's despatch be complied with,—“I see no reason why the Medical College in Accra should not aim from the start at providing a medical education which will eventually satisfy the requirements of the Council.” A standard of education in English language and literature must be aimed at which will satisfy these requirements.

E. MORRIS FRANKLIN,
Senior Medical Officer.

THE HONOURABLE
THE DIRECTOR OF MEDICAL AND SANITARY SERVICE,
ACCRA.

APPENDIX III.

A BILL

INTITULED

AN ORDINANCE to provide for the Establishment in the Gold Coast Colony of a College of Medicine for British West Africa.

1. This Ordinance may be cited as The Royal Medical College of West Africa Ordinance, 1928. Short title

2. A College for the purpose of teaching medicine, surgery, and midwifery, and to be styled "The Royal Medical College of West Africa" shall be established in the Colony. Establishment of Medical College

3. (1) The College shall be under the control of a Council to be styled "The Council of the Royal Medical College of West Africa" (hereinafter called the Council). The Council incorporated

(2) The Council shall be a body corporate having perpetual succession and a common seal.

(3) The Council may acquire and hold property movable or immovable, and may transfer the same, contract, and do all things necessary for or incidental to the purpose of its constitution. It may sue and be sued.

4. (1) The following persons shall be members of the Council:— Constitution of the Council

- (a) the Director of Medical and Sanitary Service of the Gold Coast, who shall be *ex-officio* President of the Council ;
- (b) the Colonial Secretary, who shall be *ex-officio* Vice-President ;
- (c) the Treasurer of the Colony ;
- (d) the Secretary for Native Affairs of the Colony ;
- (e) the Dean of the College ;
- (f) the Deputy Director of Sanitary Service of the Colony ;
- (g) the Principal of Achimota College ;
- (h) one official member to be nominated and appointed by the Governor of Nigeria ;
- (i) one official member to be nominated and appointed by the Governor of Sierra Leone ;
- (j) two unofficial members to be nominated and appointed by the Governor of the Gold Coast ;

(k) one unofficial member to be nominated and appointed by the Governor of Nigeria ;

(l) one unofficial member to be nominated and appointed by the Governor of Sierra Leone.

(2) The Secretary of the College shall be the Secretary to the Council.

Term of office
of nominated
members

5. The nominated members of the Council shall hold office as members of the Council for a term of three years.

Vacation of
member through
absence

6. Any nominated member who is absent without reasonable cause from three ordinary consecutive meetings of the Council may, by resolution of the Council passed at any ordinary meeting of which notice has been duly given, be held to have vacated his membership.

Meetings of the
Council

7. (1) Meetings of the Council shall be held at such times and places and in such manner as the Council shall appoint.

(2) The President shall at any time summon a meeting upon receipt of a requisition signed by three members of the Council calling upon him so to do.

Proceedings

8. (1) At any meeting of the Council the President, or in his absence the Vice-President, or in the absence of both, a member chosen by the members present, or by a majority of them, shall preside as Chairman.

(2) Every question which comes before the Council shall be decided by a majority of the votes of the members present ; but no question shall be decided unless five members at least besides the Chairman are present at the time of the decision.

(3) The Chairman and every member shall have one vote ; and in case of an equality of votes the Chairman shall have a second or casting vote.

(4) In the event of the question coming under consideration by the Council which involves a fundamental point of policy or a radical change in the administration of the College if the vote of Council shows a majority of less than two thirds in favour of the proposal or the reverse it shall lie within the discretion of the Chairman to declare the division invalid and to refer the matter back for further debate at a subsequent meeting of Council.

(5) The common seal of the Council may, and shall only, be affixed to any instrument by the President or the Vice-President and any other two members, who shall all sign their names to such instrument in token of their presence.

Powers of the
Council

9. The Council shall have the entire management of and superintendence over the affairs, concerns, and property of the College, and shall provide for that management and exercise that superintendence in accordance with the rules for the time being in force under this Ordinance.

10. (1) The Council shall cause to be kept a register in which shall be entered full details of all donations to the College, including the names of the donors, and the special conditions on which any donation was given.

Register of
Donations

(2) All sums of money given, subscribed, or bequeathed to the College shall be vested in the Council and shall constitute the capital funds of the College.

(3) A separate account shall be kept of the funds of the Council ; and no portion thereof shall be expended, except by way of investment, without the express authority of the Governor.

11. The Council shall—

Duties of the
Council

(a) invest their funds as they think fit in such securities as for the time being are sanctioned by the law of England for investment by trustees ;

(b) expend as far as is necessary the interest of the capital funds mentioned, and also any other moneys at their disposal—

(i) by providing scholarships for the benefit of students at the College ;

(ii) in any manner which may appear to the Council to be likely to increase the efficiency of the College as a means of training students for the medical profession.

(c) carry out the terms of any donation or bequest.

12. (1) Not later than the last day of April in each year the Council shall cause to be prepared a statement of the receipts and disbursements during the previous year, a statement of the assets and liabilities of the Council on the last day of such year, and a separate statement and valuation of the moneys, securities, and properties forming the capital funds of the Council.

Statement of
accounts to be
audited and
published

(2) The said statements shall be audited by the Auditor of the Gold Coast Government and shall be printed and published in the *Gazette*.

13. (1) The Council may make rules regulating—

(a) the mode and time of convening the meetings of the Council and of transacting business thereat

(b) the selection, duties, and remuneration of temporary officers appointed locally ;

(c) the charging of fees to students at the College ;

(d) the keeping of accounts of the income and expenditure, assets and liabilities of the College Funds ;

(e) generally all matters connected with the College.

(2) Such rules shall be subject to the approval of the Governor in Council, and shall not be of any force or effect until they have been so approved, and have been published in the *Gazette*.

Appointment of
Dean

14. (1) The Governor shall appoint a duly qualified medical practitioner to be Dean of the College, and also such other officers as may be required for the conduct of the College.

(2) The Dean shall, subject to the control of the Council, have the general management and direction of the College and of the course of instruction thereat.

Dean to be
assisted by
Executive
Committee

15. (1) The Dean shall be assisted in the performance of his duties by an Executive Committee, which is hereby constituted to consist of the Senior Lecturers and the Secretary of the College, with the Dean as Chairman.

(2) The Executive Committee may with the approval of the Council make, revoke, vary, or amend orders and regulations consistent with this Ordinance dealing with—

- (a) the qualifications of applicants for permission to enter the College as students ;
- (b) the conditions to be fulfilled for registration as medical students ;
- (c) the course of instruction to be followed by students ;
- (d) the examinations to be passed and other conditions to be fulfilled by candidates for diplomas and certificates ;
- (e) the granting of scholarships and exhibitions belonging to the College, and the fixing from time to time of the amount of such scholarships and exhibitions and the period for which they may be drawn ;
- (f) the maintenance of good order and discipline, and the penalties to be imposed on students contravening any such orders or regulations.

(3) Any penalty imposed under (2) (f) of this section shall be conclusive, and shall not be called in question in any Court of law.

Granting of
Diplomas

16. The Council may grant to such students of the College as have passed an examination in medicine, surgery, and midwifery, hereinafter called a qualifying examination, diplomas as licentiates of the College to be known as Licentiates of the Royal Medical College (L.R.C.M.).

Qualifying
examination
and standard
of proficiency

17. (1) Every qualifying examination shall be held at such times as the Council may appoint, and shall be conducted by a Board of Examiners nominated by the Council.

(2) The standard required from candidates at any qualifying examination shall be that laid down by the General Council of Medical Education and Registration of Great Britain.

18. Every holder of a diploma as a licentiate of the College shall be entitled to be registered as a medical practitioner on the register kept under the Registration of Medical Practitioners and Dentists Ordinance.

Holders of
Diplomas entitled
to practise

Cap. 54

19. The Council may cancel any diploma if the name of the holder is at any time struck off from the said register under the provisions of section 13 of the said Ordinance.

Cancellation of
Diplomas

20. All fees charged under this Ordinance shall be paid to the general revenue of the College.

Appropriation of
fees

21. The Council may institute post-graduate courses in hygiene and other professional subjects, and may grant special diplomas in such subjects after examination.

Post-graduate
courses

22. Any decision of the Council in matters relating to the College and to students and licentiates shall be final, and shall not be called in question in any Court of law.

Decision of the
Council to be
final

RULES AND REGULATIONS OF THE COUNCIL UNDER
SECTION 13 OF THE ORDINANCE.

Sub-section (1) (a) the mode and time of convening the meetings of the Council and of transacting business thereat.

1. The Council shall meet not less than once every quarter and at such times as may be arranged by the President. Five members shall constitute a quorum.

2. Not less than four weeks before all ordinary meetings of the Council the Secretary shall issue to each member a summons to attend giving a statement of the Agenda for the meeting together with a copy of the minutes of the previous meeting.

3. No matters other than those which appear in such Agenda will be considered unless it appears to the Council that it is expedient or of urgent importance to do so.

4. Meetings will be held in the Council Chamber of the College unless for any reason it seems fit to the President that the meeting should be held elsewhere.

5. The College Secretary shall attend all meetings and take a minute of the proceedings which he will subsequently enter in a Minute Book.

6. The Secretary shall assist at the deliberations of the Council but shall not possess a vote.

7. Special meetings summoned by the President under Section 7 (2) may be convened on three days' notice being given. At such meetings the minutes of the previous meeting will not be taken as part of the Agenda.

8. One of the quarterly meetings shall be the Annual Meeting for the purpose of receiving the Report for the year and the Financial Statements attached thereto.

Sub-section (1) (b) the selection, duties and remuneration of temporary officers appointed locally.

1. Subject to review by the Council the Executive Committee may nominate part-time lecturers and temporary officers, such as examiners, and arrange their duties.

2. One examiner, the internal, in each subject shall be a teacher of the subject at the College and one examiner, the external, shall not be on the teaching staff of the College.

3. The executive committee shall nominate the external examiners.

4. The nominations of examiners by the Executive Committee who are Government servants must be notified to their departmental heads by the Dean and leave for their attendance secured before they are confirmed by Council.

5. In an emergency the Dean shall have authority to nominate examiners.

6. The Executive Committee may make recommendations to the Council regarding any departure from the fixed scale of remuneration.

7. Each examiner shall receive for examination in each subject a fee of ten guineas provided the total number of candidates does not exceed thirty; an additional fee of half-a-guinea for each student in excess of that number.

8. Temporary lecturers or Demonstrators shall receive remuneration at a rate not exceeding fifteen shillings an hour for each attendance.

Sub-section (1) (c) the charging of fees to students at the College.

1. (a) All students shall pay the following fees:—An annual fee of £100 or alternatively a fee of £35 to be paid at the opening of each term. This fee shall cover all tuition, residence and boarding charges and supply of class text books.

(b) Such fees shall be paid within the first week of the academic year or term as the case may be, and in default of payment within this period the student shall pay a supplementary charge of £2 for the first week in arrear and £5 for the second. Students who fail to pay their fees before the end of the third week of the academic year or term may be excluded from the hostel and suspended from the College until the fees are paid, when their reinstatement shall depend on the discretion of the Council.

2. In addition to the above charges students shall pay a fee of £2 for examination or re-examination in each subject of the pre-medical and professional examinations.

3. All students shall pay a fee of £5 before receiving their Diploma.

4. A student shall pay a deposit of £1 annually on the microscope issued to him for his use. This deposit is returned at the end of the year provided that the microscope is then found to be in a satisfactory condition, due allowance being made for fair wear and tear. A further deposit of £1 is required from each student towards the cost of breakages of apparatus or fabrics. The balance of this deposit shall be paid to the student at the end of the year.

5. In the event of a student being found during the year to have been responsible for breakages exceeding this amount, a fresh deposit will be required before he is allowed to continue his laboratory work.

6. Wilful or careless damage to apparatus or fabrics involving serious loss or expense will be reported to the Council for disciplinary action.

Sub-section (1) (d) the keeping of accounts of the income and expenditure, assets and liabilities of the College Funds.

1. The Secretary shall be responsible for the keeping of such books and accounts as may be required by the Auditor.

RULES AND REGULATIONS OF THE EXECUTIVE
COMMITTEE UNDER SECTION 15 OF THE
ORDINANCE.

Sub-section (2) (a) the conduct of its own business.

1. The Executive Committee shall hold regular meetings, at least once at the beginning and once at the end of each term, and at such other times as the Dean may appoint.

2. A special meeting may be called at any time at the desire of any three members.

3. A week's notice of each meeting shall be given.

4. Four members shall constitute a quorum.

5. Minutes of the proceedings of meetings of the Executive Committee shall be circulated to the Council for review and ratification. In drafting the minutes for circulation the Secretary shall separate matters of routine, technical and professional administration which require no more than formal ratification from resolutions involving questions of policy and equipment which are submitted for the decision of Councils.

Sub-section (2) (b) the qualifications of applicants for permission to enter the College as students.

1. Candidates for admission to the College must communicate direct with the Dean, making use of the prescribed form of application.

2. Each candidate must produce satisfactory evidence of good conduct and character.

3. No student is admitted until he has attained the age of 17.

4. Before admission the candidate must pass an entrance examination in general education which is accepted for matriculation or entrance to the Faculties of Arts or Pure Science in any University in the United Kingdom.

5. No student will be admitted until he has been medically examined by a Government medical officer and a certificate obtained that his standard of health is satisfactory.

6. The academic year begins in October and all forms of application must reach the Dean not later than 30th June.

SPECIAL ADMISSION.

7. A student who has completed a portion of the medical course at another College or University, may with the special sanction of the Executive Committee be permitted to join the College for the concluding years of study for the Diploma provided that

- (i) the said College or University is recognised by the General Medical Council;
- (ii) the applicant is registered as a medical student;
- (iii) the course of training already undergone is part of a recognised course of study for a registrable qualification.

It is to be clearly understood that such students are only accepted under special circumstances and that the Executive Committee reserves full right to refuse such applications. Under no conditions may the above requirements be relaxed. No applications for special admission from holders of subordinate medical qualifications can be considered.

Sub-section (2) (c) the conditions to be fulfilled for registration as medical students.

1. The Dean of the College shall keep a register of medical students and the names of all students who have fulfilled the necessary conditions shall be entered therein.

2. After passing the entrance examination the student will enter upon the studies of the pre-registration course which shall occupy one year and shall include instruction in

- (i) Physics (theoretical and practical), including the elementary mechanics of solids and fluids, the elements of heat, light, sound, electricity and magnetism. (This course should not include bio-physics or the clinical applications of physics which are to be taken in the medical curriculum).
- (ii) Chemistry (theoretical and practical)—the elements of science. (This course should not include bio-chemistry, pharmacological chemistry or the clinical applications of chemistry, which are to be taken in the medical curriculum).
- (iii) Biology—the elements of general biology, including practical work and the fundamental facts of vegetable and animal structure, life history and functions.

3. Before registration as a medical student every person shall be required to sit an examination in the above subjects which shall be known as the Pre-registration Examination. A pass in physics and chemistry is essential for registration and no student shall be allowed to proceed to the study of the second year subjects until he has satisfied the examiners in these two subjects. While not essential for registration as a medical student, a pass in biology must be secured before a student will be allowed to enter for the first professional examination.

4. The Pre-registration Examination will be held in accordance with the general rules laid down under Section 15, sub-section (2) (e) hereunder, and the following certificates of attendance will be required before entrance to the examination :—

- (a) at one year's course of lectures and demonstrations in Chemistry ;
- (b) at one year's course of practical instruction in Chemistry ;
- (c) at one year's course of lectures and demonstrations in Physics ;
- (d) at one year's prescribed course of practical Physics ;
- (e) at one year's course of lectures and demonstrations in **Elementary Biology** ;
- (f) at one year's course of practical **Elementary Biology**.

5. The student who has passed the Pre-registration Examination shall be required to register as a medical student.

Sub-section (2) (d) the course of instruction to be followed by medical students.

1. The period of professional study, between the date of registration as a medical student and the date of the final examination for any Diploma which entitles its holder to be registered under the Ordinance shall be a period of certified study during not less than five academic years, in the last three years of which clinical subjects shall be studied.

2. In the course of professional study the following subjects shall be included :—

- (i) Chemistry, physics and biology including general embryology. Instruction in these subjects in their application to **Medicine**.
- (ii) Human anatomy and human physiology. These courses should include :—
 - (a) Dissection of the entire body ;
 - (b) Histology ;
 - (c) Elements of human embryology ;
 - (d) Bio-chemistry and bio-physics.

These subjects shall occupy the whole of the first and second year of the medical course and students shall pass an examination in these subjects to be known as the first professional examination and shall not be allowed to proceed to the higher subjects until they have done so.

- (iii) Elementary Bacteriology.—A course in this subject should be taken before the student undertakes his regular clinical appointment (vii) 2 ; (viii) 2).
- (iv) Pathology.—Courses of instruction in (a) General and Special Pathology and Morbid Anatomy ; (b) Clinical Pathology. Each student shall be required to have received practical instruction in the conduct of autopsies and to have acted as a post-mortem clerk for a period of at least ten weeks.
- (v) Pharmacology and materia medica, including pharmacological Chemistry. A course, including practical work, shall be taken concurrently with courses of clinical instruction.
- (vi) Forensic medicine, hygiene and public health. Courses of instruction, theoretical and practical, in these subjects shall be taken concurrently with the later stages of clinical instruction.
- (vii) Medicine, including applied anatomy and physiology, clinical Pathology, and therapeutics comprising :—
 1. A course of systematic instruction in the principles and practice of medicine.
 2. A medical clinical clerkship for a period of nine months, of which at least three months must have been spent in the hospital wards.
 3. Lectures or demonstrations in clinical medicine, and attendance on general in-patient and out-patient medical practice, during seven terms, which may be concurrent with the terms prescribed under (viii) 4.
 4. Instruction in applied Anatomy and physiology and in Clinical Pathology.
 5. Instruction in therapeutics and prescribing including pharmacological and physical therapeutics and the methods of treatment by vaccines and sera.
 6. Instruction in the following subjects, viz. —
 - (a) Children's diseases ;
 - (b) Acute infectious diseases (" Fevers ") ;
 - (c) Tuberculosis ;
 - (d) Mental diseases ;
 - (e) Diseases of the skin ;
 - (f) Theory and practice of vaccination.

(viii) Surgery, including applied anatomy and physiology and clinical pathology, comprising :—

1. A course of systematic instruction in the principles and practice of surgery.
2. A surgical dressership for a period of nine months, of which at least three months must have been spent in the hospital wards.
3. Practical instruction in surgical methods, including Mechano-Therapeutics.
4. Lectures or demonstrations in clinical surgery and attendance on general in-patient and out-patient surgical practice, during seven terms, which may be concurrent with the terms prescribed under (vii) 3.
5. Instruction in the administration of anaesthetics.
6. A course of instruction in operative surgery.
7. Instruction in applied anatomy and physiology and clinical Pathology.
8. Instruction in the following subjects, *viz.*:—
 - (a) Diseases of the eye—refraction—use of ophthalmoscope ;
 - (b) Diseases of the ear, throat and nose : use of otoscope, laryngoscope and rhinoscope ;
 - (c) radiology ;
 - (d) General diseases ;
 - (e) Orthopaedics.

(ix) Midwifery and diseases of women. Instruction during a period of at least two terms, comprising :—

1. Courses of systematic instruction in the principles and practice of obstetrics and gynaecology.
2. Lectures or demonstrations in clinical obstetrics and gynaecology, and attendance on in-patient and out-patient gynaecological practice.
3. Instruction in the following subjects, *viz.*—
 - (a) Ante-natal conditions ;
 - (b) Infant hygiene ;
4. Every student shall, after attending the courses of systematic instruction in the principles and practice of surgery and of obstetrics, give continuous attendance on obstetrical hospital practice under supervision for a period of three months, during one month of which, at least, he shall perform the duties of an intern student in a lying-in-hospital or ward. He shall attend during the period twenty cases of labour under adequate supervision. Extern or district maternity work shall not be taken until the student has personally delivered at least five cases in the lying-in-hospital or ward, to the satisfaction of his teacher.

Sub-section (2) (e) the examination to be passed and other conditions to be fulfilled by candidates for diplomas and certificates.

1. The first professional examination at the end of the second year of medical studies—an examination shall be held in human Anatomy and physiology, histology, elements of human embryology, bio-chemistry and bio-physics.

2. Second professional examination. At the end of the third year of medical studies an examination shall be held in materia medica, pharmacy and pharmacology, elementary pathology and bacteriology.

3. Final professional examination. This shall comprise the practice of medicine, surgery and midwifery as scheduled in (vi), (vii), (viii) and (ix).

4. The pre-registration and professional examinations shall be held twice yearly.

5. The examinations will be conducted by a Board of Examiners nominated by the Council with the Director of Medical and Sanitary Services as chairman and the Dean as vice-chairman.

6. Application for admission to the examinations must be made not less than two weeks before the commencement of the examinations and must be accompanied by fees and certificates of study as hereinafter laid down.

7. Certificates shall not be granted by lecturers unless satisfied that the student has diligently attended the classes specified and unless a satisfactory standard of proficiency has been attained at the terminal or test examination.

8. Candidates shall not be admitted to the examinations unless the Dean is satisfied that:—

- (a) the candidate has complied with the requirements for admission to the College and to the particular examinations;
- (b) the candidate has a satisfactory record of good conduct;
- (c) that all examination fees and other dues have been paid up to date.

9. A candidate shall enter for all the subjects of any one examination at one and the same time.

10. Fifty per cent. of marks in each subject shall be deemed necessary to qualify for a pass. If a candidate fails in any subject or subjects he may be allowed exemption from further examination in the subject or subjects passed provided that he has attained 60% of marks in those subjects: provided also that no exemption will be granted unless a minimum of 40% marks has been obtained in the other subject or subjects.

11. A student who has been exempted from re-examination in any subject or subjects must attain 60% of marks when he subsequently presents himself for examination in the remaining subject or subjects.

12. Each examination shall consist partly of a set paper and partly of a practical and oral examination.

13. In no subject shall the total marking for the written be greater than that for the practical and oral part of the examination.

14. The examination in each subject shall throughout be conducted jointly by the two examiners appointed for that subject.

15. It shall be the duty of each examiner to take part in the invigilation at the written examinations.

16. It shall be open to examiners in the final subjects to take into consideration the reports of the clinical teacher upon the hospital work of the candidates.

17. Examiners shall not less than a week before the opening of the examination hand to the Dean in person a copy of the questions in sealed and secret cover.

18. The Dean shall deposit these in his office and shall be personally responsible for their reproduction and the prevention of leakage.

19. Examiners shall submit their results and recommendations under confidential cover to the Dean not less than three days after the termination of the examination. These results shall be tabulated and on the following day considered by the Board of Examiners who shall be the sole authority for drawing up and approving the lists of successful candidates.

20. The decision of the Board of Examiners shall be final and can in no case be re-considered.

21. No individual examiner shall in any circumstances communicate the findings or recommendations of the examiners to any person other than the Dean.

22. Results of the professional examinations will be published in alphabetical order without marks.

23. The exact marks obtained by the students in examinations shall in no case be divulged.

24. Honours are awarded to those who obtain 80% in all the subjects of the final examinations.

25. Distinction is awarded to those who obtain 80% in any subject in any of the professional examinations except the final.

26. The following conditions must be fulfilled by students before admission to

A.—The First Professional Examination.

Students must present the following certificates:—

- (1) of attendance throughout two years at the prescribed courses of lectures and demonstrations on (a) human anatomy, (b) physiology, (c) bio-chemistry and bio-physics and (d) Embryology.
- (2) of attendance throughout two years at the prescribed courses of practical anatomy and of having dissected all the parts of the complete human body.
- (3) of attendance throughout two years at the prescribed practical courses in Histology, bio-chemistry and bio-physics and experimental Physiology.

B.—The Second Professional Examination.

Students must present the following certificates:—

- (1) of having completed one year's study since passing the first professional examination.
- (2) of attendance throughout one year at the prescribed lectures and demonstrations in general pathology, bacteriology, pharmacology, materia medica and pharmacy.
- (3) of attendance throughout one year at the prescribed practical courses on
 - (a) Pathology
 - (b) Bacteriology
 - (c) Pharmacology ; and
 - (d) Practical pharmacy and dispensing.

C.—The Final Examination.

Students must present the following certificates:—

- (1) of having been a registered medical student for five years.
- (2) of having completed one year's study since passing the second professional examination.
- (3) of having attained the age of 21.
- (4) of having attended the prescribed courses of lectures and demonstrations in the following subjects:—
 - (a) Medicine—general and special
 - (b) Surgery—general and special
 - (c) Midwifery
 - (d) Gynaecology
 - (e) Hygiene and public health; and
 - (f) Forensic medicine and toxicology.
- (5) of having attended the medical and surgical practice (in-patients and out-patients) at the Gold Coast Hospital throughout a period of three years as follows:—

Elementary clinical medicine and surgery—six months.

Medical clerking—nine months.

Surgical clerking and dressing—nine months.

Post-mortem clerking—three months.

Obstetric and gynaecological Clerking—two months.

Twenty cases of labour which certificate shall state that the student has personally attended each case during the course of labour making the necessary abdominal and other examinations and that he has personally delivered at least five cases.

Clinical instruction in infectious diseases, ophthalmology, ear, throat and nose, mental diseases, and venereal diseases.

- (6) of having attended a course of practical and field instruction in sanitation.
- (7) of having practical knowledge in the administration of anaesthetics.

Sub-section (2) (g) the maintenance of good order and discipline and the penalties to be imposed on students contravening such regulations.

1. The Rules and Regulations for the guidance of students as made by the Executive Committee and ratified by Council shall be published in the College calendar.

2. Amendments when ratified will be posted on the College notice board with the dates from which they take effect.

3. The penalties provided for breach of discipline or infringement of the rules are:—

- (a) Cancellation of credit for attendance at lecture or class:
 - (b) Exclusion from further attendance at lectures or classes for a definite period:
 - (c) Exclusion from test examinations.
- Note.*—(a), (b) and (c) may be inflicted by lecturers.
- (d) Exclusion from professional examinations.
 - (e) Suspension for three months or less.

Note.—(d) and (e) may be inflicted by the Dean.

(f) Suspension for twelve months or less.

(g) Expulsion.

Note.—(f) and (g) may be inflicted by the Council.

4. The Executive Committee is permitted to devise and impose, if necessary, other punishments than those indicated above.

5. A student who considers he has been wrongfully or excessively punished may appeal from the decision of a lecturer to the Dean and from the Dean to the Executive Committee and from the Executive Committee to Council, but if such appeal against a punishment is found to be frivolous or unjustified the student will be liable to an increase of punishment.

APPENDIX IV.

ESTIMATED EXPENDITURE ON SALARIES, PASSAGES, ETC., OF EUROPEAN STAFF.

Staff.	Scale of Salary.	1st year.	2nd year.	3rd year.	4th year.	5th year.	6th year.	7th year.
1. Dean	Salary £1,600 Duty Pay £320	£ 1,600 320	£ 1,600 320	£ 1,600 320	£ 1,600 320	£ 1,600 320	£ 1,600 320	£ 1,600 320
2. Secretary and Bursar ..	Salary £600-30-720-40-920 Seniority Allowance £72	600 —	630 —	660 —	690 —	720 72	760 72	800 72
3. Janitor	Salary £500-12-560	292	507	519	531	543	555	560
4. Matron-Housekeeper ..	Salary £480-510-30-600	280	480	480	498	528	558	588
5. Lecturer in Chemistry ..	Salary £660-30-720-40-960 Seniority Allowance £72	385 —	678 —	708 42	744 72	784 72	824 72	864 72
6. Lecturer in Biology ..	Salary £660-30-720-40-960 Seniority Allowance £72	385 —	678 —	708 42	744 72	784 72	824 72	864 72
7. Laboratory Technician	Salary £440-12-500	257	447	459	471	483	495	500
8. Lecturer in Anatomy ..	Salary £1,200-50-1,400 Duty Pay £240-10-280	660 120	1,225 245	1,275 255	1,325 265	1,375 275	1,400 280	1,400 280
9. Anatomical Room Attendant	Salary £440-12-500	220	446	458	470	482	494	500

APPENDIX IV—continued.

ESTIMATED EXPENDITURE ON SALARIES, PASSAGES, ETC., OF EUROPEAN STAFF.

Staff.	Scale of Salary.	1st year.	2nd year.	3rd year.	4th year.	5th year.	6th year.	7th year.
10. Lecturer in Physiology..	Salary £1,200-50-1,400	£ —	£ 700	£ 1,229	£ 1,279	£ 1,329	£ 1,379	£ 1,400
	Duty Pay £240-10-280	—	140	246	256	266	276	280
11. Physiological Laboratory Attendant	£440-12-500	—	257	447	459	471	483	495
12. Biological Laboratory Attendant	£440-12-500	—	257	447	459	471	483	495
13. Curator of Scientific Apparatus	£540-30-600	—	315	558	588	600	600	600
14. Librarian	£480-510-30-600	—	280	480	480	498	528	558
15. Lecturer in Physics ..	Salary £660-30-720-40-960	—	—	330	675	705	740	780
	Seniority Allowance £72	—	—	—	—	36	72	72
16. Assistant Lecturer in Anatomy	£800-40-960	—	—	400	820	860	900	940
	Staff Pay £150	—	—	75	150	150	150	150
	Seniority Allowance £72	—	—	36	72	72	72	72

APPENDIX IV—continued.

ESTIMATED EXPENDITURE ON SALARIES, PASSAGES, ETC., OF EUROPEAN STAFF.

Staff.	Scale of Salary.	1st year.	2nd year.	3rd year.	4th year.	5th year.	6th year.	7th year.
		£	£	£	£	£	£	£
17. Assistant Lecturer in Physiology	£800-40-960 Staff Pay £150 Seniority Allowance £72	—	—	400	820	860	900	940
		—	—	75	150	150	150	150
		—	—	36	72	72	72	72
18. Pharmacologist	£1,000-50-1,150 Staff Pay £150 Seniority Allowance £100	—	—	—	584	1,029	1,079	1,129
		—	—	—	88	150	150	150
		—	—	—	58	100	100	100
19. Dispensing Instructor ..	£500-12-560	—	—	—	292	507	519	531
20. Senior Pathologist	£150	—	—	—	75	150	150	150
21. Bacteriologist	£800-40-960 Staff Pay £150 Seniority Allowance £72	—	—	—	467	823	863	903
		—	—	—	88	150	150	150
		—	—	—	42	72	72	72
22. Pathologist	£800-40-960 Staff Pay £150 Seniority Allowance £72	—	—	—	467	823	863	903
		—	—	—	88	150	150	150
		—	—	—	42	72	72	72
23. Laboratory Technician	£440-12-500	—	—	—	257	447	459	471

APPENDIX IV—continued.

ESTIMATED EXPENDITURE ON SALARIES, PASSAGES, ETC., OF EUROPEAN STAFF

Staff.	Scale of Salary.	1st year.	2nd year.	3rd year.	4th year.	5th year.	6th year.	7th year.
		£	£	£	£	£	£	£
24. Laboratory Technician..	£440-12-500	—	—	—	257	447	459	471
25. Senior Physician ..	£1,300-1,400 Duty Pay £260-280	— —	— —	— —	650 130	1,300 260	1,300 260	1,300 260
26. Senior Surgeon	£1,300-1,400 Duty Pay £260-280	— —	— —	— —	650 130	1,300 260	1,300 260	1,300 260
27. Physician	£1,000-50-1,150 Seniority Allowance £100	— —	— —	— —	500 50	1,025 100	1,075 100	1,125 100
28. Surgeon	£1,000-50-1,150 Seniority Allowance £100	— —	— —	— —	500 50	1,025 100	1,075 100	1,125 100
29. Ophthalmologist ..	£1,300-1,400 Duty Pay £260-280	— —	— —	— —	650 130	1,300 260	1,300 260	1,300 260
30. Obstetrician and Gynaecologist	£1,300-1,400 Duty Pay £260-280	— —	— —	— —	650 130	1,300 260	1,300 260	1,300 260
31. Senior Lecturer in Public Health	£150	—	—	—	—	75	150	150

APPENDIX IV—*continued.*

ESTIMATED EXPENDITURE ON SALARIES, PASSAGES, ETC., OF EUROPEAN STAFF.

Staff.	Scale of Salary.	1st year.	2nd year.	3rd year.	4th year.	5th year.	6th year.	7th year.
		£	£	£	£	£	£	£
32. Junior Lecturer in Public Health	£100	—	—	—	—	50	100	100
33. Lecturer in Skin Diseases	£100	—	—	—	—	50	100	100
34. Lecturer in Venereal Diseases	£100	—	—	—	—	50	100	100
35. Lecturer in Mental and Nervous Diseases	£100	—	—	—	—	50	100	100
36. Lecturer in Ear, Nose and Throat Diseases	£100	—	—	—	—	—	50	100
37. Lecturer in Infectious Diseases	£100	—	—	—	—	—	50	100

APPENDIX IV—continued.

ESTIMATED EXPENDITURE ON SALARIES, PASSAGES, ETC., OF EUROPEAN STAFF.

Staff.	Scale of Salary.	1st year.	2nd year.	3rd year.	4th year.	5th year.	6th year.	7th year.
38. Lecturer in Anaesthetics	£100	—	—	—	—	—	50	100
39. Assistant Lecturer in Materia Medica	£100	—	—	—	—	—	50	100
	Total	5,119	9,205	12,285	21,107	28,335	29,557	30,388
Passages .. .. .	.. .. .	437	1,096	1,479	2,198	2,833	2,833	2,833
Outfit Allowances .. .. .	.. .. .	345	210	60	135	—	—	—
	Total	5,901	10,511	13,824	23,440	31,168	32,390	33,221
Less estimated value of Services of Medical and Surgical Staff to the Gold Coast Hospital .. .. .	.. .. .	—	—	—	2,500	2,500	2,500	2,500
		5,901	10,511	13,824	20,940	28,668	29,890	30,721

ESTIMATED EXPENDITURE ON SALARIES OF AFRICAN STAFF.

African Staff.	Scale of Salary.	1st year.	2nd year.	3rd year.	4th year.	5th year.	6th year.	7th year.
1. 1st Division Clerk ..	£222-12-£282	£ 222	£ 234	£ 246	£ 258	£ 270	£ 282	£ 282
2. 2nd Division Clerks ..	£60-6-84, £98-8-138, £154-10-£208 ..	98	106	144	185	199	213	235, 1 at 154 and 1 at 81.
3. Laboratory Attendants	£60-6-84, £98-8-138, £154-10-£208 ..	60	186	354	507	582	638	704
4. Groundsman or Overseer	£72	72	72	72	72	72	72	72
5. Four Messengers and Cleaners at 1/6 p.d.	£27	55	110	110	110	110	110	110
6. Labourers at 1/6 p.d.	£27	302	330	357	384	411	439	439
7. Hostel Cook	£63	32	63	63	63	63	63	63
8. Cook's Mate	£30	15	30	30	30	30	30	30
9. Pantry Boys at £48 & £42	£90	45	90	111	132	132	132	132
10. Curator's Assistant ..	£60-6-84, £98-8-138, £154-10-£208 ..	—	30	63	69	75	81	91
11. Assistant Cooks ..	£60	—	30	60	90	90	90	90
12. Stewards	£48	—	24	72	120	192	264	288
	Totals	901	1,305	1,682	2,020	2,226	2,414	2,536

APPENDIX V.

A BILL

INTITULED

AN ORDINANCE to provide for the establishment of a Government Auxiliary Medical Service, and for purposes connected therewith.

[.]

BE IT ENACTED by the Governor of the Gold Coast Colony, with the advice and consent of the Legislative Council thereof, as follows:—

1. This Ordinance may be cited as “The Medical Assistants Ordinance, 192 .,” and shall come into operation on the day of , 192 .
Short title and commencement
2. There shall be established a Government Auxiliary Medical Service, the members of which shall be styled Medical Assistants; and the Director of Medical and Sanitary Services, subject to the general directions of the Governor, shall be charged with the control and superintendence of such Service.
Establishment and control of Government Auxiliary Medical Service
3. Any person shall be qualified for admittance into such Service who has at an approved Government Medical Training School undergone such course of training and passed such examinations as may from time to time be prescribed under the provisions of this Ordinance.
Qualifications of Medical Assistants
4. (1) A certificate in the form set forth in the Schedule to this Ordinance shall be issued under the authority of the Director of Medical and Sanitary Services to any person admitted into such Service.
Issue of Certificate to Medical Assistants
- (2) Such certificate shall be valid only for so long as the holder remains in Government employment.
Duration of certificate
5. Notwithstanding the provisions of section 14 of the Registration of Medical Practitioners and Dentists Ordinance, a Medical Assistant may practise medicine, surgery, dentistry, and obstetrics, in pursuance of his official duties as a Medical Assistant; but he shall not be entitled to demand or receive from patients any payment or other reward for his services.
Power to Medical Assistants to practise without fee
Cap. 54
6. Any Medical Assistant who—
(a) on any pretext whatsoever accepts any payment or other reward for his services;
OR
(b) represents himself to be, or styles himself, a registered or a qualified Medical Practitioner, shall be guilty of an offence, and shall on summary conviction thereof be liable to a fine not exceeding twenty-five pounds, or in default of payment to imprisonment with or without hard labour for any term not exceeding three months.
Offences by Medical Assistants
7. Every Medical Assistant shall be, ex-officio, a public vaccinator within the meaning of the Vaccination Ordinance.
Medical Assistants ex-officio Public Vaccinators
8. Every Medical Assistant who has attended a person during his last illness shall without charge deliver within eighteen hours of the death of such person to the person required to register the death, a certificate in Form L set
Power to Medical Assistants to issue certificate of cause of death



No. 26 of 1925

forth in the First Schedule to the Births, Deaths and Burials Ordinance, 1925 ; and such certificate shall for all purposes be deemed to be and treated as and shall have the same effect as a certificate granted by a registered medical practitioner under section 30 of the said Ordinance. Provided that no such certificate shall be granted by a Medical Assistant in any case in which a registered medical practitioner has been in attendance on the deceased without the countersignature of such registered medical practitioner.

Unlawful practice

9. Any person who falsely represents himself to be or styles himself as a Medical Assistant, or who without being in possession of a valid certificate issued under section 4 of this Ordinance, practises or professes to practise or publishes his name as practising or receives any payment or other reward as practising medicine, surgery, dentistry, or obstetrics, as a Medical Assistant, shall be liable on summary conviction to a fine not exceeding twenty-five pounds or in default of payment, to imprisonment with or without hard labour for any term not exceeding three months.

Power to Governor
in Council to make
regulations

10. It shall be lawful for the Governor in Council to make regulations for any of the following matters :—

- (a) The establishment and constitution of a Board to be charged with the function of examining candidates for admission into the Government Auxiliary Medical Service, and of controlling and regulating such examinations ;
- (b) the prescription of fees to be charged ;
and
- (c) generally, for the further or better effectuation of the purposes of this Ordinance.

SCHEDULE. (Section 4).

UNDER THE MEDICAL ASSISTANTS
ORDINANCE, 192 . .

CERTIFICATE OF ADMISSION AS A MEDICAL ASSISTANT.

It is hereby certified that _____
of _____ was on the
day of _____, 19 _____, admitted to the
Government Auxiliary Medical Service as a Medical
Assistant, and is in pursuance of his official duties as such
authorised to practise within the Gold Coast Colony, but
not to demand any payment or other reward from patients
for his services, medicine, surgery, dentistry, and obstetrics
for so long as he shall remain in Government employment
but no longer.

Dated this _____ day of _____, 19 _____.

Director of Medical and Sanitary Services.

NOTE.—This certificate ceases to be valid on the holder ceasing to be in Government employment.