NOTES ON SOME GERMAN UNIVERSITIES.

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AND

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I.—THE UNIVERSITY OF STRASSBURG.

(Continued.)

The Pharmacological Institute: Construction; Laboratories; Experiments on Animals.—Professor Schmiedeberg.—Dr. Jacobi.—The Physiological Institute.—Professor Goltz.

THE last laboratory of the group, situated behind and to the south side of the *Bürger Spital*, is the Pharmacological Institute of Professor Schmiedeberg. A short description of this will doubtless be of interest to our readers, inasmuch as there does not exist in any of our English medical schools or universities a laboratory of a like nature or one used for a similar purpose. Built of the same kind of rough stone as the others, this laboratory is a large square building, whose main entrance immediately faces the southern fortifications of the town. Upon the ground floor we notice the lecture theatre, a fine room lighted by electricity, and affording accommodation for an audience of about 200. Adjoining the theatre is the *Vorbereitungs Saal*, a kind of pharmaceutical museum, in which all the material used for demonstration in the lectures is prepared. One of the chief points of interest in connection with Professor Schmiedeberg's system of lecturing is the method of limelight demonstrations. Behind the lecturer is a large ground-glass screen, upon which, by means of an ingenious system of lenses and prisms, enlarged images of subjects under the microscope can be thrown. Thus, a large audience can observe the effects of various drugs upon the circulation in a frog's foot or in the mesentery, while many physiological experiments, such as the inhibitory action of the vagus, muscle contraction curves, blood pressure, and the like, can also easily be demonstrated. To the right of the theatre lies the pharmacological laboratory, a room fitted up with every appliance that modern science can suggest, and reserved exclusively for the use of those engaged in original research.

Attached to the laboratory is a large instrument room, containing among other things a huge water bath always in action; the cover of this presents some thirty or forty various-sized holes for the reception of evaporating capsules. The great value of such an arrangement is obvious, since it dispenses with the otherwise unavoidable necessity of each man employing and watching several water baths at the same time. Another room in the vicinity, called the electrical laboratory, contains a valuable collection of electrical apparatus, a large dynamo in one of the cellars serving also to illuminate the various rooms and laboratories.

Ascending a fine broad flight of stairs, we reach the first floor and enter the library. This is a large, square-shaped room, lighted by gas and electricity, and containing most English, French, and German books upon pharmacology and pharmaceutical chemistry. To the right of the library is a smaller room, set apart for spectroscopic and polarimetrical work, while another one adjoining it serves the purpose of a combustion and weighing room. To the left of the library is the professor's private laboratory and consulting room. Here, in his official capacity of Dean, he sits every day from 11 to 12 to give advice to any student who may apply to him. Proceeding still farther along the passage, we pass through a swing door and enter the physiological laboratory. This laboratory, as its name implies, is set apart entirely for experimental purposes, the chemical characters of a drug being investigated in the above-mentioned laboratory upon the first floor. It consists of a series of rooms of various sizes, the first being chiefly occupied by cages and large glass cases filled with the various birds and other animals used for experimental purposes. The second, the largest of all, is fitted up with tables and benches, and contains numerous pieces of apparatus, some of which are of very considerable size. In one corner of the room is a large machine, made by Miescher, of Bâle, for the carrying on of artificial respiration. So smoothly and regularly does this machine work, and so accurately can the volume of inspired air

be regulated, that it is probably one of the most perfect instruments of its kind ever invented. Upon one of the benches is a large recording apparatus for variations in blood pressure, etc. It consists of a series of revolving cylinders, the sheet of paper upon which the movements of the levers are recorded being a continuous one, and its rate of movement easily regulated. The other benches are covered with smaller pieces of apparatus, such as kymographs, blackened cylinders, and the other instruments used for the study of drugs upon the action of the heart, muscles, respiration, etc. The room is illuminated by electricity, and, in addition to the fixed lamps, small incandescent lights can be used in any part of it by means of movable wires. The advantages of this method of special lighting are incalculable, since by its use the ordinary cumbrous and inefficient lamp or taper is dispensed with.

Among some of the later methods of experimental investigation we may mention one by which the action of any drug upon the various organs in the body can be directly observed and recorded. If, for example, it is desired to investigate the influence of a preparation upon one of the abdominal viscera, the method adopted is as follows: The animal is brought under the influence of urethane, and, when thoroughly narcotised and insensible, is strapped down upon the operating board, and a preliminary tracheotomy performed. The abdomen is then carefully opened in the middle line, from the ensiform cartilage to the pubes, and the animal, on its board, transferred to the water bath. This consists of an oblong glass case, about 30 inches by 15, in which the board is placed upright, and water containing 2 per cent. of sodic chloride is poured in until it reaches just below the level of the tracheotomy tube, the water being maintained at the normal temperature of the animal's body. By illuminating the bath a perfect view of the abdominal viscera is obtained, and a photograph is immediately taken. Should the breathing become embarrassed, the tracheotomy tube is connected with the machine for artificial respiration. A cannula is now tied into the right external jugular vein, and the drug whose action it is desired to investigate is introduced into the circulation, the cannula being left *in situ* for further use, if necessary. The viscera are carefully watched for any changes which may take place as the result of the action of the drug, and such changes as occur are photographed. In this manner Dr. Carl Jacobi, the inventor of the method, has observed the influence of numerous drugs upon the peristaltic action of the intestines, the rate of absorption of various substances from the intestines, the slightest change in the lacteals being clearly seen in the transparent medium. The movements of the viscera can be recorded, and any special organ can be dissected out and carefully watched. At the completion of the experiment, the animal is withdrawn from the bath and destroyed before returning to consciousness. Another important invention of Dr. Jacobi is a large and complicated apparatus for the maintenance of an artificial circulation. Until now, every attempt in this direction has met with only partial success; but the present scheme, the outcome of many years' work, promises to become one of great practical usefulness.

Adjoining the laboratory are various smaller rooms, one being set apart for the preparation of solutions; another for microscopic examinations; while a third, called the mercury room, contains numerous mercurial pumps, among which are those of Pflüger and Ludwig. Professor Schmiedeberg, the director of the institute, is a pharmacologist whose valuable contributions to science one can best appreciate by glancing through the literature upon the subject, which abounds with his name. Though still a comparatively young man, he holds the important post of Dean of the Medical Faculty, and discharges his onerous duties with such skilful tact as to retain his popularity with the least exemplary students in the university.

Unlike the other laboratories which we have had occasion to mention, the pharmacological one is open only to those who are engaged in original research; the ordinary student merely attending a course of lectures upon *materia medica* and pharmacology during his fourth or fifth semester.

Owing to its privacy and the splendid opportunities it offers for work, the laboratory is always full of researchers, some of whom are Englishmen; and seldom does a volume of the *Archives of Experimental Pathology and Pharmacology* (of which Professor Schmiedeberg is one of the editors) appear without at least one or two original articles emanating from his laboratory.

Before the medical laboratories of Strassburg can be left, we must describe the Physiological Institute of Professor Goltz. This large separate building is situated next to the Pathological Insti-

tute, and is also quite modern. Into the workings of the laboratory, space in the present article will not permit us to enter, but, before passing on, a word about the Professor of Physiology may be fitting. Professor Goltz, whose name is almost as well known here in England as in Germany, is at the present time Rector of the University of Strassburg, and has thus an enormous number of duties, apart from his professional ones, to perform. For many years an investigator of some of the more abstruse problems of physiology, especially those connected with the central nervous system, his work is ever prominently before the minds of physiologists. The Professor at home is (to use the expression of his wife) a slave to his pet dog, Bob. When he is at work in his study over some abstruse problems of physiology, if the dog rouses himself from his slumbers and utters a slight whine of discontent, he rises from his writing, seeks his hat, and takes Bob for a walk, and this may be repeated several times a day. But the great Professor is never happy unless his dog is also content. This is the man against whom, in conjunction with Dr. Ferrier, such accusations of cruelty were levelled during the London International Congress in 1881.

OPENING OF THE VICTORIA INFIRMARY, GLASGOW.

THIS latest addition to the general hospitals of Glasgow, the third possessed by the city, was opened, on February 14th, by his Grace the Duke of Argyll. It is situated on the south side of the river, opposite one of the large public parks of the city, in open ground, in a situation where it is practically impossible ever to be shut in by buildings, and at a considerable distance from any public works, so that it is surrounded by a comparatively pure atmosphere. The complete plan embraces four pavilions and a central administrative block. A mortuary, washing houses, etc., are at some distance from the main building, and a considerable amount of ground, tastefully laid out, surrounds the infirmary. As yet only the administrative block and one pavilion have been erected, and the mortuary and washing houses. There are thus provided at present a female and a male ward, and a ward for children, accommodation being sufficient for eighty patients, being between a third and a fourth of the total number provided for in the plans. The main wards are over 70 feet long and 26 feet wide, and have a perfectly clear floor space. They are covered for 5 feet up with cream-covered enamelled tiles. The wards have no corncoring nor woodwork, and all corners are rounded off to prevent the deposition of dust and effluvia. The cost of the part already erected has been fully £20,000. It is more than ten years since the necessity of an infirmary for the south side of the city was urged in the Southern Medical Society, but the difficulty of obtaining funds caused many years' delay to take place before the project seemed within possibility of realisation. By the will, however, of Mr. Robert Couper, of Cathcart, the great bulk of his fortune was left for the building and maintenance of an infirmary and convalescent home on the south side of Glasgow. The money, being subject to life rents, might not have been available for many years but for the generosity of his widow, who gave £10,000 to enable the hospital to be proceeded with. Active steps were begun in 1887, and, in honour of Her Majesty's jubilee, the new hospital was, with the Queen's consent, called the Victoria Infirmary. In the building there are two features of special interest: the lighting and the ventilation and heating. All the wards, corridors, staircases, and board room are lighted by electricity. In the wards a small lamp is placed above each bed, and it is made movable. The ventilation is on the Plenum system, as adapted by one of the gas engineers of Glasgow, Mr. William Key. The fresh air is drawn in through a single shaft, lined by white enamel brick. It passes through a screen, presenting 200 square feet of surface, which is washed with pure water, and thus foreign particles are extracted. It is then warmed by being passed over steam coils, and enters a large fresh-air chamber, from which, by the action of two air propellers, it is sent along a fresh-air tunnel extending under the whole building. It reaches the wards by wide shafts opening 5 feet above the floor level, being directed to the ceiling, and the foul air is removed by four outlets in each ward at the floor level. The fresh air entering the building can reach 50,000 cubic feet per minute, heated to from 33° to 68° F. The foul air finally escapes up exhaust tubes to the roof, the outlet being guarded by valves to prevent down draughts. So successfully have Mr. Key's plans been carried out that no draught

whatever is perceived in the wards, though the air meter at the outlet indicates a strong out-current, and the whole air in each ward can be renewed every seven minutes. This Plenum system has been adopted in the University College Buildings, Dundee, and four board schools, Aberdeen. Hot water is provided throughout the building, the water being heated by steam pipes in large tanks in the basement, which are in communication with tanks on the roof. The bathrooms and lavatories are ventilated on the same system, but apart from the wards.

The formal opening was carried out with much ceremony. The Lord Provost and magistrates of Glasgow, attired in their official robes, accompanied the Duke of Argyll, and after a tour of inspection of the building had been made, cake and wine were served in one of the wards. Thereafter a large public meeting was held in a neighbouring church, at which the Duke of Argyll delivered an address. He spoke of the building of such institutions as one of the means of facing the problems of our time, due to the growth of large cities. Such growth was the result of the economic conditions of our age, and could not be arrested. The problems they presented were to be faced and overcome. In the case of Glasgow the growth of 100 years represented the difference between a population of 50,000 and one of 750,000; but with that increase of people there had been a rise in the standard of comfort. The smaller population had not lived in healthier conditions, but rather the reverse; and to meet the problems due to the accumulation of population in our great cities, the practical applications of hygiene were being brought into play, which was the proper work of powerful municipalities, while to private benevolence there remained the duty of facing others of the difficulties by the founding and maintenance of such institutions as the Victoria Infirmary.

CERTIFYING FACTORY SURGEONS ASSOCIATION.

THE Association of Certifying Factory Surgeons held their first annual meeting for the election of officers, etc., on February 11th, at the Queen's Hotel, Manchester. There was a good attendance from all parts of the kingdom. The Honorary Secretary's report showed that a large amount of work had been done by the Association during the past twelve months, and that a considerable quantity of literature on the Factory Acts had been distributed. The Treasurer's report was equally satisfactory, showing, after the payment of all expenses for the past year, a considerable balance in hand. The following officers were elected:—Dr. F. H. Walsley, Salford, President. Dr. J. T. Arlidge, Stoke-on-Trent; Dr. C. Johnson, Lancaster; Dr. G. M. Stansfield, Bristol; Dr. F. Moore, Dublin; and Dr. Kidd, Ballymena, Vice-Presidents. Dr. J. C. Eames, Farnworth, Honorary Treasurer. Dr. J. Holmes, Radcliffe, Honorary Secretary. Dr. R. Gray, Honorary Secretary for Ireland; and Drs. Livy, E. Moore, W. H. Hughes, F. M. Pierce, J. Hodgson Wright, W. H. Barr, J. Barr, J. K. Davidson, H. M. Ferrie, T. Crowther, J. White, W. E. S. Burnett, J. Lawson, W. Stanwell, J. Watson, T. Fort, F. H. Wood, Purdon, R. Patrick, R. Settle, W. F. Dearden, R. Atkinson, C. A. Greaves, C. J. Trimble, J. Johnson Bailey, Executive Committee.

It was unanimously decided that the next annual meeting be held in Leeds. After the business had been concluded, the members dined together. Amongst others present at dinner were:—Drs. F. H. Walsley, J. T. Arlidge, J. C. Eames, J. Holmes, F. M. Pierce, W. Hugh Hughes, R. Patrick, C. A. Greaves, S. H. Owen, W. H. Barr, R. Settle, J. Sutcliffe, J. White, C. T. Trimble, S. Livy, J. J. Bailey, T. Fort, J. Watson, T. S. Jones, Atkinson, Dearden, and R. W. Coles, late Her Majesty's Superintendent Inspector of Factories for the North of England.

The CHAIRMAN proposed the health of Mr. R. W. Coles, the guest of the evening, and, on behalf of the Association, presented him with an illuminated address on his retirement from the official position of Her Majesty's Superintending Inspector of Factories for the North of England.

Mr. COLES, in his reply, alluded to the fact that he had been thirty-five years in the service of the Factory Department. During that time he had found the certifying surgeons of the greatest help to him in the carrying out of the Factory Acts, so much so, indeed, that he felt that their services could not be dispensed with under the present Acts.

Dr. J. WATSON proposed "The Factory Department," coupled with the name of Mr. Alex Redgrave, C.B., the Chief of the Department.

Dr. J. T. ARLIDGE, President of the late Association of Certifying Surgeons, replied to the toast of his health, which was proposed by Dr. T. M. Pierce.

MEDICAL DEFENCE UNION.

A MEETING of medical men practising in Cardiff and the neighbourhood was recently held at the Town Hall, Cardiff, to consider the desirability of forming a branch of the Medical Defence Union. Dr. W. T. EDWARDS presided, and after an explanation had been given of the objects of the Union by Dr. TAYLOR and Mr. T. GARRETT HORDER, it was proposed by Dr. TAYLOR, seconded by Dr. M. G. EVANS, and carried unanimously, that a branch of the Union be formed for the district of South Wales and Monmouthshire.

On the proposition of Dr. M. G. EVANS, seconded by Mr. J. LEWELLYN TREHARNE, Mr. Horder was requested to act as honorary secretary *pro tem.*, and to communicate with the medical men living in the district.

It was proposed by Dr. EDWARDS, and seconded by Dr. COOK, that Dr. TAYLOR be asked to bring the question before the next meeting of the South Wales Branch of the British Medical Association.

All the members present at the meeting consented to become members of the Union.

THE ETIOLOGY OF DIPHTHERIA.

DR. PARSONS'S REPORT ON ITS PREVALENCE IN THE LEEK RURAL DISTRICT.

A REPORT by Dr. H. F. PARSONS on certain outbreaks of diphtheria in the Leek Rural Sanitary District, Staffordshire, which was recently issued by the Local Government Board, shows how much there still remains to be discovered respecting the cause or origin of diphtheria. The outbreaks in this instance were found to be as puzzling as those which have occurred in other localities. During the ten years, 1879-88, 25 deaths from diphtheria and 8 from "croup" were registered as having occurred in the Leek Rural District. These deaths were far from being evenly distributed through the ten years. Fifteen of them occurred in 1885, while the four years 1882, 1883, 1886, and 1887 were free from the disease. In 1885 multiple cases occurred in several households, and the incidence of the disease appears to have been not so much a general prevalence as a severe incidence upon a limited number of households widely separated one from the other. The report upon the more recent occurrences is thus summarised: Diphtheria, from which the Leek Rural Sanitary District had been free for three years, has during the past twelve months broken out in several distinct localities. The disease has been limited to a small number of households, but the members of these households have suffered severely, children being especially attacked. The spread of the disease took place by personal communication, but no history was obtained of its having been originally introduced into any place by means of infection from a previous case. In all the households attacks the inmates were living exposed to the influence of grave insanitary conditions, and in almost all the localities the first case was a person who had possibly been exposed to the infection of scarlet fever or measles. In some of the outbreaks a rash, somewhat resembling that of scarlet fever, and followed by peeling of the skin, was observed. Symptoms of diphtheritic paralysis followed several of the cases, including one in which a red rash had appeared. No connection was found with particular milk supplies, or with any concurrent diseases of the lower animals. The action taken by the rural sanitary authority for preventing the spread of infectious diseases has been defective as regards (a) the machinery for obtaining early information of infectious cases; (b) the provision of hospital accommodation for the isolation of such cases; and (c) the remedying of sanitary defects found to exist in houses where disease has broken out.

Sanitary administration seems to be somewhat lax in this district. At the meeting of the sanitary authority on January 29th it was decided not to adopt the Infectious Disease (Notification) Act, and also not to provide accommodation for the isolation and treatment of cases of infectious disease, or means for the disinfection of infected articles of clothing, etc. This is undoubtedly false economy. A hospital which the authority formerly had was closed in 1881, on the ground that it was an unnecessary expense. Only one patient had been admitted during the year, which had

been comparatively free from infectious disease, and the maintenance of the hospital had cost £22.

Within a few weeks, however, after the closing of the hospital, a case of typhoid fever was brought home to a house in the immediate neighbourhood of the hospital. The result was that, as the patient could not be removed to hospital, the father and other working members of the family were compelled to leave their employment and apply to the guardians for relief. One after another took the disease, and the whole family had to be supported out of the rates, at a cost of 30s. a week, for five months. Another primary duty of a sanitary authority, which requires more attention than it receives in the Leek district, is the remedying of unwholesome conditions of houses and their surroundings. At all the houses where diphtheria had occurred gross and dangerous nuisances were found to exist, such as a damp, dilapidated, and ill-ventilated condition of the house, defective drains, some in direct connexion with the interior of the house; faultily-placed privies, and water supplies exposed to contamination; and though there is no sufficient ground, in Dr. Parsons's opinion, for ascribing the origin of the diphtheria solely to such defects, it is likely enough that they assisted its spread and aggravated its severity. In some cases trivial, but insufficient, works of improvement have been carried out, but the failure to secure the effectual execution of the required works appears to be the result of the view locally held, that the authority have only power to order the abatement of a nuisance, and must not specify in their notice the particular works required to be executed for the purpose.

This view is not in accord with some recent legal decisions. But in any case, having regard to the prevalent want of sanitary knowledge, the difficulty of getting country workmen to carry out works in any way but that to which they have been accustomed, and the hardship felt by owners when works which they have had carried out to the best of their knowledge and ability are not found satisfactory, it seems desirable, in the interests of owners themselves as well as of the public health, that when they are called upon to execute structural works for the abatement of nuisances, they should be told what the required works are, and the best way (which is by no means necessarily the most expensive one) of carrying them out. If these particulars be not specified in the formal legal notice, they may at least take the form of recommendations, which may precede or accompany the formal notice. In some districts it has been found useful to have lithographed plans and printed specifications giving information on such matters as the proper construction of privies or the details of house drainage for distribution in appropriate cases. In this way the adoption of improved methods of construction may often be brought about, such as perhaps could not be secured by legal compulsion.

EFFECT OF THE EPIDEMIC OF INFLUENZA ON THE SICK RATE.

EXPERIENCE OF THE MEDICAL SICKNESS, ANNUITY, AND LIFE ASSURANCE SOCIETY.

THE monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Society was held on Wednesday, February 12th, at 38, Wimpole-street. Dr. F. De Havilland Hall presided (in the unavoidable absence of Mr. Ernest Hart), and there were present: Dr. J. W. Hunt, Mr. E. Bartlett, Mr. J. Brindley James, Mr. F. Wallace, and Dr. R. Lord.

It was reported that the progress of the Society was steadily and fully maintained, 14 proposals having been received during January. The sickness had been exceptionally heavy during the first month of 1890, and for the first time in the history of the Society the expectation assumed in the tables under which the Society was started had been exceeded. During this period—comprising five financial weeks—no fewer than 55 members had claimed and received sickness pay, this unusual experience being largely due to epidemic influenza. It was stated that in the first week of the year there were seven new claims, one of which was on account of influenza, and 19 weeks 1 day's sickness, including one week from the epidemic; the second week there were nine new cases, six being on account of influenza, this causing 8 weeks 2 days' sickness, out of a total of 25 weeks 6 days; the third week there were eight new cases, six being on account of influenza, causing 9 weeks 2 days' sickness, out of a total of 25 weeks 4 days; the fourth week there were twelve new cases, ten of which were on account of influenza, causing 14 weeks 1 day's sickness, out of a total of 30 weeks 5 days; while on the fifth week

there were nine new cases, eight of which arose from influenza, and absorbed 16 weeks 4 days' sickness, out of a total of 28 weeks 1 day. The total sickness for the five weeks amounted to 130 weeks, as compared with a computed expectation of 119 weeks, or an excess of 11 weeks, but this was considerably more than accounted for by the claims on account of influenza—48 weeks 2 days. Of the 45 new claims during the term, 31 were due to the epidemic. Although the expenditure for sickness claims only had averaged over £100 per week, the strain had been met out of current revenue, and would not necessitate any decrease in the reserves. This experience of the Society, therefore, proves two things: it shows the soundness of the financial and actuarial principles adopted at the foundation of the Society and faithfully followed in its subsequent management. It also illustrates once more the assistance which such an association is capable of rendering, and the wisdom of making timely provision for the periods of sickness which, especially in the medical profession, are liable to incapacitate the youngest and the healthiest. All particulars and documents can be obtained of the Secretary, Mr. C. J. Radley, 26, Wynne Road, Brixton, S.W.

NOTES ON THE MEDICAL ORGANISATION OF THE EGYPTIAN ARMY.

By SURGEON-MAJOR J. G. ROGERS, D.S.O., M.S.,
Sewa and Principal Medical Officer, Egyptian Army.

At a moment when the organisation of the Medical Staff is still under discussion, perhaps a brief account of the medical organisation of the Egyptian Army may not be devoid of interest.

Organisation as a Corps.—The medical service is organised as a corps entitled "the Medical Corps of the Army," being thus similar in title to other corps, such as "The Camel Corps." It consists of English officers, English non-commissioned officers, Egyptian officers, and Egyptian non-commissioned officers and men.

English Officers.—The English officers, seconded from the Medical Staff, English Army, may be considered as administrative, or staff officers, although with the exception of the Principal Medical Officer, they also perform executive duties in charge of army hospitals. In their administrative capacity they are staff officers for medical questions to officers commanding districts or commands.

Principal Medical Officer.—The Principal Medical Officer is the staff officer for all medical questions in the head quarter staff of the army.

Recruiting.—Two officers Medical Corps are detailed as staff officers recruiting, to inspect the work of conscription by the Military Recruiting Commissioners in the provinces. They have the full powers of Deputy Assistant Adjutant-Generals Recruiting. In medical questions they report to the Principal Medical Officer, on all other questions to the Adjutant-General.

Egyptian Officers.—The Egyptian officers are chiefly executive, only the seniors acting as administrative officers in case of necessity. They are as it were the regimental officers of the corps.

Non-commissioned Officers and Men.—As in other corps these are conscripts, but the Medical Corps does not receive conscripts direct. It is recruited by transfers from other corps of men of good character and superior education. The pay being higher, and the position of the corps as good as that of any other branch of the service, there is no difficulty in obtaining good men.

Rank.—There is neither relative nor honorary rank in the Egyptian army; all have substantive rank.

Powers of Command.—Powers of command of officers Medical Corps are limited to their own corps, all officers and men attached for duty, and all patients in military hospitals. In case of necessity, however, they command drafts of other corps proceeding from one station to another.

Courts-martial.—They also serve on courts-martial or boards, taking their seniority according to their army rank.

Titles.—The titles of all officers are in Arabic, those of officers Medical Corps the same as those of officers of other corps. Thus: El Kaimukam (Lieutenant-Colonel), A, Assistant Adjutant-General; El Kaimukam (Lieutenant-Colonel), B, S.M.O., Cairo; El Sewa (Major-General), C, Adjutant-General; El Sewa (Major-General), D, P.M.O. The Adjutant-General, the Surveyor-General, and the Principal Medical Officer have all the same army rank, that of Major-General or Sewa.

Uniform.—There is a distinctive Medical Corps uniform, but all

the English officers being staff officers wear the staff uniform of the army.

Pay.—Their rank and position being equal, their pay is the same as that of other officers of the rank. As, however, promotion is slower in the Medical Corps owing to the small number of English officers, a provision is made for increase of pay after so many years' service in the rank.

Allowances.—Pay for English officers being consolidated, there are but few allowances—namely, travelling allowance, Soudan allowance, forage allowance. Officers of Medical Corps draw the same as all other officers according to army rank and pay.

General Principle.—The general principle throughout is equality of rank, status, and pay with all other branches of the service. This has resulted in equality of consideration from all, and equal distribution of honours and rewards in His Highness the Khedive's service. Promotion by brevet does not exist, but were it introduced in the Egyptian Army, it would apply to the Medical Corps as to any other corps. The result of this organisation has been that the officers of the Medical Corps having no grievances, are absolutely content, while I have no hesitation in stating that the efficiency of the Medical Service has been largely increased by the position given to the Medical Corps as a scientific corps of the Army.

The late Adjutant-General, Egyptian Army, wrote as follows when leaving: "As you remark, the Medical Corps of the Army is really organised as a corps, and the officers have army rank. The result of this has been absence of friction between officers of the Medical Corps and other corps and departments, and total absence of grievances or discontent amongst the officers Medical Corps." This is the opinion of a distinguished officer for three years Adjutant-General, and under whose enlightened administration the present organisation was finally adopted. It is by such a measure as this that the contentment of the Medical Staff of the English Army can alone be obtained, their efficiency largely increased, and the *esprit de corps* which already strongly exists be still further developed, to the good of the entire army. In the large-minded spirit in which medical organisation in the Egyptian army has been dealt with the English Government and the English military authorities have an example well worthy of imitation.

THE SCOTTISH ASSOCIATION FOR THE MEDICAL EDUCATION OF WOMEN.

THE Scottish Association for the Medical Education of Women has got fairly to work, and has adopted a series of by-laws. These have been issued to the public, along with a statement of the constitution of the Association and a preliminary prospectus. Copies may be obtained from the Secretary at the office of the Association, 51, Hanover Street, Edinburgh. The prospectus affords an excellent apology for the formation of the Association. After reference to the fact that medical classes for women have been conducted for about four years in Edinburgh, it indicates that there has been a prevalent feeling for some time that a medical school founded on a wider basis than the present school is essential no less in the interests of the students themselves than for the success of the movement at large. The Association has secured suitable premises and qualified teachers, and has already, even in the present state of comparative unpreparedness, fifteen students at regular work. The Association has also reason to believe that this number will shortly be considerably increased. The aims of the Association, while including the encouragement of all proper endeavours in the direction of the medical education of women are, therefore, particularly in the direction of the foundation of a College of Medicine for Women at Edinburgh, where a thorough course of instruction will be given, which shall be open to all. It is further intended—a most important advance on conditions existing in some other schools—that "in all cases the fees will be the same as those charged to male students." The preliminary prospectus is endorsed by a most representative body of ladies and gentlemen, including the principals of three Scotch universities and a large number of the professional and teaching circle. The annual subscription, conferring the privileges of membership, is half a guinea. A further interesting feature in the constitution is the election of a Students' Committee, which, in terms of the by-laws, should have the effect of uniting the students, and keeping them collectively in touch with the Court of Management, so that their views and wishes may receive that fair consideration which the Scotch universities have accorded to male students by the institution of the Students' Representative Councils.