

Report on a mission to Paris in October, 1889, to attend the 4th session of the French Surgical Congress : together with observations on the military medical schools of France / by Sir T. Longmore.

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From Sir T. Longmore

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REPORT

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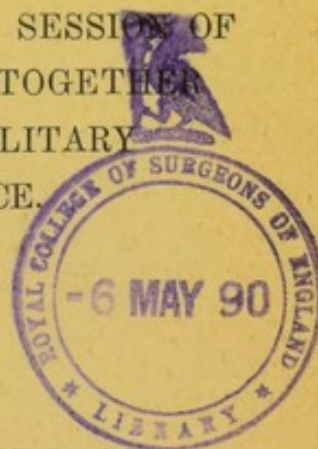
MISSION TO PARIS

IN OCTOBER, 1889, TO ATTEND THE 4TH SESSION OF
THE FRENCH SURGICAL CONGRESS, TOGETHER
WITH OBSERVATIONS ON THE MILITARY
MEDICAL SCHOOLS OF FRANCE.

BY

SURGEON-GENERAL SIR T. LONGMORE, R.P., C.B.,

Professor of Military Surgery at the Army Medical School, Netley.



(*Mem.*—The Observations on the French Military Medical Schools are brought
down to the present date, February, 1890.)



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REPORT

MISSION TO PARIS

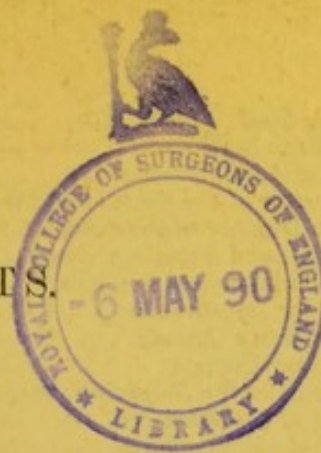
IN ORDER TO DETERMINE THE MISSION OF
THE UNITED STATES IN FRANCE
WITH REFERENCE TO THE MILITARY
SITUATION IN FRANCE

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REPORT.

PART I.—THE CONGRESS.

In compliance with orders from the Director-General, General
Remarks.
Medical Staff, conveyed to me by letter No. $\frac{4800}{7}$, and dated 4th 1318
October, 1889, to attend the French Surgical Congress appointed to commence on the 7th of October, I left London on the 6th of October and arrived at Paris on the evening of the same day. I reported myself early on the following morning to the President of the Congress, Baron Larrey. I had previously called upon the Secretary-General, Dr. Pozzi, who very kindly at once placed me *au courant* with the arrangements of the Session, and afforded me every facility for taking part in the proceedings that were to follow. I remained at Paris in attendance on the meetings until their conclusion on the afternoon of Saturday, the 12th of October, and on Monday, the 14th, travelled back to London, reporting my return on the following morning.

The French Surgical Congress is an institution of recent date, the one which I attended having been the fourth only of the annual Sessions of the Society which have taken place. A Report on the transactions of the third Congress, which was attended by Brigade Surgeon Godwin, was printed in the volume of Army Medical Reports for the year 1887 (London, 1889). The purpose of the Congress seems to have been extended in scope during the last year or two, for whereas at the beginning its main object appeared to be to establish friendly and scientific relations between the surgeons of Paris and the provincial surgeons of France, it now seeks not only to establish scientific intercourse between the French surgeons of the metropolis and provinces, but also between them and the surgeons of other countries—to give the Congress an international rather than solely a national character. The prevailing desire to extend the usefulness of the Congress by combining the experience of foreign surgeons with the results of the practice of surgery by members of the profession resident in France was referred to in the opening address of Baron Larrey, the President for the year, and in the Report of the General Secretary, Professor Pozzi. History and
Objects of
the Congress.

Its
international
character.

The Honorary
Presidents.

It was also, no doubt, in accordance with the general desire to give the Congress an international rather than a more restricted national character that, out of eleven Honorary Presidents elected by the Congress, six of the number were not natives of France: one being from Holland, one from Belgium, one from Roumania, one from Switzerland, one from Denmark, and myself from England. The remaining five were distinguished surgeons from the leading provincial cities of France. It was probably intended to be complimentary to England that at one of the sittings, on the 11th of October, the honour was conferred on me of being requested to take the Chair and to preside at the meeting.

Proceedings
of the
Congress.

The sittings took place both in the mornings and in the afternoons of the days of meeting. The hours fixed were from 9 to 12 o'clock in the morning, and from 3 to 6 o'clock in the afternoon, but in consequence of the large number of papers placed on the lists the afternoon sittings were arranged to commence an hour earlier on the last two days of the Congress. As many as eighty papers were set down to be read at the Congress, but a few were omitted. On an average fifteen minutes were allowed for each paper, but the time was prolonged in some instances with the consent of the meeting. Occasionally patients were brought into the theatre in illustration of the effects of operative proceedings described in the papers read or for other purposes of demonstration. No discussion as a rule followed the papers, as is customary at similar meetings in England, although exceptionally from time to time observations were made, or questions asked, by the President or some of the members present. The only language used at the Congress was French.

There was no sitting on the morning of the 9th of October, the time being devoted to visits of individual members to the principal hospitals of Paris: and again, on the afternoon of Thursday, the 10th of October, no papers were read, but the members of the Congress visited certain institutions of interest. The places visited were the buildings, which are on a vast scale and installed with the most perfect arrangements, for the new practical school attached to the Faculty of Medicine, the Morgue, and the Pasteur Institute. On the morning of Friday, the 11th of October, also, instead of the usual meeting at the Amphitheatre, the members visited the Exhibition grounds for the purpose of inspecting the collections of surgical instruments and examining the hospital materials and appliances, together with the Sick Transport conveyances, exhibited by the Ministry of War and the various Societies for aid to sick and wounded.

Place of
Meeting.

The great semicircular amphitheatre of the Faculty of Medicine, said to be capable of seating 1,400 persons, was placed at the disposal of the Congress for its meetings, and here the Session was opened on Monday, the 7th of October, in presence of a large gathering of members, about 150 in number, as well as of a considerable assemblance of other persons, the upper row of seats of the amphitheatre being open to the public.

The meeting also took place in this theatre on the following morning, but about noon, just before the time for closing the meeting, while M. le Dentu, of Paris, was engaged in communicating the results of his experience on operations practised for local tuberculous disease, smoke appeared about the platform on which the President and Vice-President were sitting. The occurrence was at first regarded as a matter of trifling importance, but it was soon followed by an outburst of flame, showing its serious character, and the meeting was hastily broken up. The means of exit being close by, and the passages sufficiently numerous and free, no difficulty was experienced in quitting the theatre and reaching the large rectangular court outside. This court forms the principal means of access to the buildings of the Faculty of Medicine. The lodge of the Concierge is on one side of the court, near the entrance gates, and, in its construction, a fire alarm bell had been attached to it as a measure of precaution. This was at once rung, and in a very short time firemen with the necessary appliances were on the spot, but it was only after exertions which lasted an hour that the fire was extinguished.

Fire at the
Faculty of
Medicine.

Amphitheatre
burnt.

A considerable portion of the amphitheatre was completely burnt, but the objects of chief interest destroyed were three large paintings by a French artist of the name of Matout. The one most highly prized represented Ambroise Paré introducing the use of the ligature for stopping the flow of blood after an amputation, in place of the hot iron which at the time was in general use for arresting hæmorrhage. This painting, which was of very large size, 9 × 5 metres, was entirely destroyed. One of the two other paintings burnt represented a surgical operation in early days at the Hôtel-Dieu, and the other, the first lecture given in Paris on anatomy, the place being the Chapel of St. Julien-le-Pauvre, one of the oldest chapels in Paris. Although these two paintings were not so completely destroyed as the large one connected with Ambroise Paré's introduction of the ligature, they were said to be damaged beyond the possibility of restoration. Some marble busts were also much injured; one of Hippocrates which was placed above the platform fell to the ground and was broken into fragments. The fire was caused by overheating the warming apparatus, the mouth of which was stated to be close beneath the tribune, or platform, of the amphitheatre, and insufficiently guarded.

Paintings
of professional
interest
destroyed.

In consequence of the destruction of the amphitheatre at the Faculty of Medicine the sittings of the Congress subsequently took place in the still larger amphitheatre of the new School of Medicine, which is on the opposite side of the same street where the entrance to the Faculty of Medicine is placed. All the parts of the new School were not yet fully completed, but the amphitheatre was sufficiently finished to be used for the meetings. The School itself occupies a very large extent of ground, and the laboratories, anatomical rooms, apartments designed for scientific collections, and others, are on a very costly and magnificent scale. They are constructed and

Place of
Meeting
changed.

arranged not simply with attention to the bare necessities of teaching purposes, but with the addition of every modern appliance that could be thought of for facilitating the labours both of those who teach and of those who are under instruction.

Subjects
discussed.

Three special subjects had been previously fixed for consideration at the Congress, and upwards of thirty members brought forward their experience and expressed their views regarding them. These questions were—(1), the immediate and remote results of operations practised for local tuberculous disorders; (2), the surgical treatment of peritonitis, and (3), the treatment of aneurysms of the extremities. In addition to the papers and observations on these special questions, numerous other papers were read, the subjects of which may be said to have embraced the whole region of surgical pathology and operative interference in patients of both sexes. These papers were seventy-one in number.

It is not possible in a report like the present one to give a digest of such a number of papers that would either do justice to the papers themselves or that would be likely to serve any useful purpose. The omission of an attempt to give an abstract account of them is of the less moment, inasmuch as they will be printed in *extenso*, revised by their authors, in the transactions of the Congress which will be published under the direction of the Secretary General and Committee of Management. A copy of the volume of transactions will be furnished to each member of the Congress.

Remarkable
surgical
operation.

I may, however, refer briefly to the cases of two of the patients who were presented to the Congress as they had both been the subjects of surgical operations of remarkable interest. In the first of the two patients I allude to, the whole of the right ilium, pubes, and a portion of the ischium had been extirpated two years previously for osteosarcoma. The tumour, which was of enormous volume, overlapped the ilium in all directions. The operation was commenced by two incisions, a vertical anterior one near the symphysis, and a second one of immense extent inclosing within its boundary the whole outline of the ilium. The ilium was then separated from all its muscular connexions and extirpated. A portion of the ischium was alone preserved for the sake of the muscular insertions belonging to it. The head of the femur was sawn across obliquely. There was no serious hæmorrhage. Six large drainage tubes were inserted in the wound, and reunion was obtained by first intention. Notwithstanding the formidable extent of the operation, which lasted more than three hours owing to the difficulty of separating the bone from its connexions with the muscular tissues and adjoining bones, and certain special difficulties met with in the removal of part of the ischium and head of the femur in consequence of the manner in which these parts were invaded by the tumour, the patient bore the operation on the whole fairly well. He was able to leave his bed in two months from the date of its per-

formance and up to the time of his appearance at the Congress there had not been any sign of a return of the disease at the seat of operation or elsewhere. He was able to walk satisfactorily with the aid of crutches, and had considerable power of flexing the thigh toward the abdomen and executing other movements of the limb. His general health was good. This formidable and extensive operation had certainly saved the patient from a very painful and speedy death. The operator, who himself presented the patient to the Congress and gave the history of the case, was M. Roux, of Lausanne.

The second case to which I just now alluded was brought forward by M. Demons, of Bordeaux, and is that of a patient in whom the whole of the larynx had been extirpated two years and four months previously for epithelioma. The disease had its origin in the cavity of the organ and was limited to it. The man was in excellent health but could only make himself understood by signs and movements of the lips. None of the structures in the neighbourhood of the situation from which the larynx had been removed presented the least trace of a return of the disease. The history of the case, with a description of the operation and the patient's progress, had been read at one of the previous annual meetings of the Congress. Surgical attention having been so much attracted to questions regarding this operation and its effects in consequence of the case of the late greatly lamented Emperor of Germany, the operation in this instance, and the condition of the patient, formed subjects of particular interest.

Successful case of complete removal of the larynx.

I will now close this part of my report, but it would, however, be ungracious to do so without an acknowledgment of the remarkable courtesy and kindness shown to the foreign visitors by the eminent President of the Congress, its staff, and indeed by all the French members present at the meetings. The Officers of the Congress devoted themselves to making the visit of the foreign members as agreeable and as instructive as time at disposal and other circumstances would allow; while all the principal institutions of Paris likely to afford interest to members of the medical profession were freely opened to them.

Concluding remarks.

PART II.—THE MILITARY MEDICAL SCHOOLS OF FRANCE.

I took the opportunity while at Paris of visiting the Military Hospital of the Val-de-Grâce, and the buildings attached to it for the use of its celebrated Military Medical School. The courses of lectures and practical exercises had terminated before the time of my visit, but through the kind attention of Médecin Principal Dr. Chauvel, one of the Professors of the School, I was enabled to see the establishment very thoroughly. I was aware that several changes had been made in the School, especially in the

Visit to the Val-de-Grâce.

programme of study, since I visited it in the year 1878, and I was desirous of ascertaining the nature and extent of these changes. As the constitution and internal economy of the School at the Val-de-Grâce differ in many particulars from those of the Army Medical School at Netley, it has appeared to me that a description of the French School, of the regulations under which it is governed, and of its principal educational features, will be useful and interesting for purposes of comparison with corresponding points in the Netley School. At the same time that I collected particulars regarding the School of advanced studies at the Val-de-Grâce, I made myself acquainted with the modifications which have been introduced in the preliminary education of the Army Medical Officers through the recent law creating a new military medical school at Lyons. I propose to devote the remainder of this report to a description of the results of my inquiries on these topics.

School of
Applied
Medicine
at the
Val-de-Grâce.

I had been under the impression that the existing Military School of Applied Medicine and Pharmacy at the Val-de-Grâce (*École d'Application de Médecine et de Pharmacie Militaires*) was a very old institution at the time the Army Medical School was founded in England in the year 1860. I think this belief was a very general one among those who were interested in the establishment of the English School, and it seems to be one not confined to this country. In the elaborate official report on the "Education of Medical Officers for the Public Service in England," by Medical Inspector R. C. Dean, United States' Navy, which includes a detailed description of the results of his visit to Netley in March 1876, the following remarks occur:—"It has been my object to give in this report a complete and detailed account of the systems of education for medical officers of the army and navy adopted by France and England, two great and enlightened nations. Occupying as they do a foremost place among the mighty powers of Europe, and ever vying with each other in the improvement of their formidable naval and military forces, it is fair to assume that whatever they have done in this direction has been the result of the lessons of experience and of a well-grounded conviction of its utility. . . . Both these nations have sought through their schools, naval and military, to mitigate, as much as possible, the evils which war and disease bring on their people, and to keep their forces efficient and promptly available by land and sea. The two systems, having the same object, yet differ from each other as widely as the character of the two nations, and it may be to our advantage to view them in comparison. That of France is much older and longer established, having been organized considerably more than a hundred years ago; while that of England was inaugurated as recently as 1860. The former is, therefore, naturally more extended and complete; there being in France the three Naval Medical Schools of Brest, Rochefort, and Toulon and the Army Medical School at the Val-de-Grâce in addition; whereas in England there is but one

Remarks by
Med. Insp.
Dr. Dean,
U. S. Navy.

school in common for the medical corps of the army, navy, and Indian services.*

The foregoing statement is correct as regards the three Naval Medical Schools of France at Rochefort, Toulon, and Brest, which were respectively instituted in the years 1722, 1725 and 1731, but is not applicable to the existing Special School at the Val-de-Grâce, for it was only decreed ten years before, and inaugurated only eight years before, the Practical Army Medical School in England. The decree authorizing the institution of the French School of Application at the Val-de-Grâce was dated 9th August, 1850, but the decree determining its organisation was not issued until the 13th of November, 1852. The mistake has arisen in consequence of the distinction not having been recognized between the School of Applied Medical Science now at the Val-de-Grâce, and the Schools which formerly existed at certain military hospitals set apart for general and clinical instruction with the view of preparing pupils for the medical service of the Army. The hospital of the Val-de-Grâce was one of these "Hospitals of Instruction" long before the existing School of Application at the Val-de-Grâce was instituted.

Institution of the existing School at the Val-de-Grâce.

It will be instructive to glance at the successive modifications which the plans adopted for recruiting the ranks of the Sanitary Corps of the French army have undergone at various intervals during comparatively recent years as well as at the changes which have been made from time to time in the arrangements of the preparatory schools where pupils destined for the medical service have received their early medical education and military training under the direction and at the cost of the French Government.

Mode of recruiting the Sanitary Corps of the Army in France.

In the year 1836 the French Government instituted three elementary schools for the preparation of students to fit them for the medical service of the army. They formed a constituted part of the chief garrison hospitals at the three cities of Lille, Metz, and Strasburg. The schools were designated "*Écoles de Médecine Militaires*," and the hospitals "*Hôpitaux Militaires d'Instruction*." The pupils (*élèves*) passed their first two years of study in medicine and surgery at one or other of these schools, and having completed this probationary period, they spent another year of study at the more advanced school (*École de Perfectionnement*) of the military hospital of the Val-de-Grâce† in Paris. This hospital was then distinguished as the "*Hôpital*

Elementary Mil. Med. Schools in 1836.

Advanced Mil. Med. School in Paris.

* See pp. 91-92 of the U. S. Navy Department Report on "The Naval Medical Schools of France and England, &c., by Richard C. Dean, Medical Inspector, U. S. Navy," Washington, Government Printing Office, 1876. 1st Part: On the Naval Medical Schools of France; 2nd Part: Education of Medical Officers for the Public Service in England. The Medical Department, R.N., took part in the Practical Medical School at Netley, at the time of Inspector Dean's visit in 1876.

† Records show that the *Maison du Val-de-Grâce* was suppressed, like other religious houses, in the early period of the French Revolution, and that the building was appropriated as a *General Military Hospital*, by decree, dated 31st July, 1793. It soon gained great importance from its size and position, and thus offered a specially advantageous field for military medical observation and

Origin of the Mil. Hospital of the Val-de-Grâce.

Militaire de Perfectionnement." The pupils acquired at these schools a general knowledge of medicine and surgery with their allied sciences, at the same time that they were educated in habits of subordination and discipline. When the pupils left the Val-de-Grâce they were sent to various military hospitals, either in France or Colonial stations, as Sub-Assistant Surgeons (*Sous-Aides*), and in this capacity were employed in subordinate professional duties. After a few years, generally from 7 to 8 years, they returned for another year to one of the hospitals of instruction at Metz, Strasburg, or Lille, and subsequently for a second year at the hospital of the Val-de-Grâce. During this period they had to pass the necessary examinations for the degree of doctor at a Faculty of Medicine, and when this degree had been obtained, the grade of Aide-Major in the Army Medical Service was conferred on them.

Hospitals of
Instruction
suppressed
in 1850.

In 1850 the Military Hospitals of Instruction were suppressed. In March, 1852, a decree was promulgated by the terms of which no candidates were to be received for military service but such as had already completed their studies in medicine at civil schools and obtained their doctor's degree. Those doctors who were successful at an open competition for appointments were then to pass, with the grade of Aide-Major, for one year's special study of the military bearings of their profession at the Val-de-Grâce.

Creation of
a Mil. Med.
School at
Strasburg,
1856.

This plan did not prove successful. It was found that a sufficient number of candidates for military service could not be obtained from among members of the medical profession who had obtained the doctorate at their own, or their family's cost. The Government felt itself compelled, therefore, to revert to the plan of engaging pupils from the commencement of their studies, and training them at schools under government direction. In the year 1856, in consequence of the pressure due to the great losses by death among the medical officers of the French army in the Crimea, to resignations, and to other circumstances, the necessity for a change in the mode of recruiting the medical service of the army became so urgent that in June of that year a decree was issued for the creation of a new military medical school at Strasburg. Shortly afterwards, a large number of young students destined for military service (*les élèves du service de santé militaire*) were collected at Strasburg, and were quartered in a large barrack near the Faculty of Medicine of that city. They went through military exercises and training while they pursued their professional studies at the Strasburg Faculty at the cost of the government until they had passed all the usual examinations, and had obtained the University Diploma of Doctor in Medicine. As soon as they had acquired this degree, they entered by right the Practical School of Applied Medicine,

instruction. Notwithstanding that great improvements have been made in some particulars, this hospital is by no means free from grave defects of construction, which are traceable to the purpose for which the building was originally designed, and are unfortunately irremediable. No measure, short of a complete reconstruction of the building, could place it on a level with modern ideas of hospital requirements.

which was now in operation at the Val-de-Grâce, subject only to an entrance examination of fitness, and at this school they went through the courses of instruction in the applications of their professional knowledge to the special conditions of military service.

After the war of 1870-71, and the loss by France of Strasburg, the system of education just described was subjected to some modifications. Partly in consequence of the great expenses which the Strasburg school had entailed, and partly owing to difficulties due to insufficient means of instruction in certain branches of tuition at the Faculty of Medicine for so large a number of pupils—the military pupils amounting at one time to 350, and the civil pupils being at least equal in number—a resolution was come to that the system of collecting all the military medical pupils in a single locality should not again be adopted. Before making fresh arrangements, however, in this direction, another trial was instituted, but still unsuccessfully, to obtain candidates for army practice from qualified doctors of medicine in civil life.

It is recorded by M. Léon Le Fort in his work, entitled “*La Chirurgie Militaire et Les Sociétés de Secours en France et à l'étranger*” (Paris, 1872, p. 45), that not long after the loss of Strasburg and its school, the French Government tried to fill up some of the vacancies in the ranks of the Medical Corps by reverting to the mode of recruiting adopted in the decree of 1852, that is, by offering the vacant appointments to those who had obtained their doctor's degree by their private resources. The 5th of January, 1872, was fixed for the competition, and 50 appointments were offered, but only two doctors in medicine appeared as candidates for them. Various reasons are assigned by M. Le Fort for this failure to attract competitors among this class of French qualified medical practitioners.

The attempt to enlist medical recruits for the army by these means having proved unsuccessful, and a resolution having been formed, as before mentioned, not to re-establish a single military medical school like the one which had been at Strasburg, a fresh system was adopted. It was ordained that military medical pupils should be accepted as before, but that they should be distributed between 11 of the chief cities of France, each of which contained a Faculty of Medicine and a sufficiently large garrison hospital. The decrees ordering these arrangements were promulgated in the years 1879 and 1880. Paris was included among the 11 cities named in the decrees. It was left to the pupils to select, according to their convenience or choice, the place of study they preferred.

This system was only maintained for about three years, when, for various reasons, a change was introduced in October, 1883, and a plan embracing a more limited distribution of the pupils was adopted in its stead. Two special preparatory military medical schools were instituted, one at Nancy, and one at Bordeaux. These provincial towns, though remote from one another, were said to offer certain facilities of access to students

Changes after
the war of
1870-71.

Decrees of
1879, 1880.

Mil. Med.
Schools at
Nancy and
Bordeaux,
1883.

from different parts of France. More complete arrangements were made for inducting the pupils into the routine of duties at the military hospitals, and in training them in the ways of military life and discipline, at the same time that they followed, as their predecessors had done elsewhere, the regular courses of medical and surgical studies at the respective Faculties of Medicine of the two towns. As soon as the pupils had completed their studies and obtained their doctorate at the Faculties of Medicine, they were moved to the Val-de-Grâce, and subjected to an examination as to fitness for military service. If this were passed successfully, they now entered the institution with the designation of "*Médecins Stagiaires*,"* and after completing a "*Stage*" of at least eight months at the school, they underwent another examination, the exit examination (*Examen de sortie*). This being passed successfully, the Stagiaire left the Val-de-Grâce with the grade of Aide-Major, 2nd class. This continued to be the system in force until the recent passage of a law establishing a new military medical school at Lyons.

"*Médecins Stagiaires*"
at the
Val-de-Grâce.

Law of 1888,
creating the
New Mil. Med.
School at
Lyons.

The law just alluded to, by which an entirely new school at Lyons has been created, having passed the Chamber of Deputies and Senate, was promulgated by the President of the Republic on the 14th December, 1888. It seems destined to exert a considerable influence on the training and education of the medical officers of the French army. The experience previously gained on these subjects was so fully considered, the provisions of the new law so amply discussed, during the passage of the bill through the French Parliament, while the outlay expended in the establishment of the school has been so considerable, that it may reasonably be expected the institution will endure longer than any of its predecessors without any fundamental change in its organisation.

Existing
modes of
recruiting the
French Army
Med. Corps.

The new law makes provision for the following modes of recruiting the regular medical service of the French active army:—

(1) Medical students will be accepted between 17 and 22 years of age, provided they are found physically fit for military service, that they possess a diploma of Bachelor of Arts and Bachelor of Science, and that they succeed in passing an examination at a public competition which will be held annually under conditions determined by the Minister of War. Having complied with these requirements, they will be classed according to the results of the competitive examination, and will then receive letters of nomination to the School of Military Medical Service at Lyons. On admission to the school they will receive a gratuity for outfit, the amount of which is determined each year by the Minister of War; they will draw an allowance of 1,000 francs a year, which will be supplemented by further grants if it be shown that the resources of their family are

Mil. Med.
Pupils.

Explanation
of the
designation
"Stagiaires."

* The period of time during which a barrister in France is obliged to attend the Bar before he can be inscribed on the Register of Barristers is called a "*Stage*," and the barrister during this probationary period is spoken of as an "*Avocat Stagiaire*." The term is probably closely related to the word *étage*, as applied to each successive story of a house. It was, no doubt, in imitation of the legal applica-

insufficient to assist in their maintenance at the school;* the books and instruments necessary for their studies will be supplied by the government; and the educational fees at the Faculty of Medicine are also defrayed by the government. In consideration of these advantages the pupils enter into an engagement to remain five years at study, or the period necessary for obtaining the diploma of Doctor in Medicine, and they sign a contract to serve at least six years in the Medical Corps of the active army, commencing from the date of their promotion to the grade of Médecin Aide-Major, 2nd Class, after leaving the Val-de-Grâce. The new school is strictly a military institution. All the pupils are quartered at the school, and they take their meals together at it. They wear a special uniform, and are in every respect under the same obligations of military discipline as the pupils at the other military schools in France.

(2) In addition to the young students just named, corporals and soldiers of the army are allowed, under certain conditions, to compete for admission to the Military Medical School at Lyons. The conditions are that they must be above 22 years of age, and must have completed six months of real and effective service on the 1st of July of the year in which the competition takes place, but they must not be above 25 years of age at that date. They must be robust, and free from any disorder or infirmity likely to render them unfit for service; must have the diploma of Batchelor in Letters and of Batchelor in Science, and must have passed such a probationary period at a medical school as may satisfy the Minister of War. Medical students drawn as Conscripts would come within this class.

Corporals and
Privates from
the ranks.

(3) In addition to the pupils educated at Lyons, civilians who have obtained the diploma of Doctor in Medicine without having passed through any military school, are to be admitted in a certain proportion, which will be determined by the Minister of War, to compete for appointments in the medical service, provided they do not exceed the limits of age fixed by the regulations. If they are successful in passing the competitive examination, and the inspection as to physical fitness for military service, they will be admitted to the Special Military Medical School at the Val-de-Grâce and be enrolled as Stagiares, like the military élèves. Like them, also, they have

Civilian
Doctors in
Medicine.

tion of the term, that the name "Médecins Stagiaires" was given to the Doctors in Medicine during their period of instruction and probation at the School at the Val-de-Grâce. The term is only applied to them during the interval between the time when they cease to be *élèves*—pupils—and when they enter the "Corps des Médecins Militaires" as Aides-Majors of the 2nd Class. The "Stagiaire," in French phraseology, corresponds with the designation "Surgeon on Probation" at the British Army Medical School, but while the stage of the former has a duration of nearly a year, the corresponding stage of the latter lasts only four months. The surgeons going through the courses of special study at the Val-de-Grâce are commonly spoken of, in brief, as "the Stagiaires," the word *Médecins* being omitted, excepting when employed to distinguish them from the "*Pharmaciens Stagiaires*."

* A list of the pupils to whom gratuities, complete or partial, are accorded after proof of the insufficiency of the fortune of their relatives to supply their needs, is published officially. The names of fifty-five pupils were published in lists of this nature, subsequently, to the competitive examination of the year 1889.

to enter into an engagement to serve at least six years in the medical corps of the active army, starting from the date of their acquiring the grade of Médecin Aide-Major, 2nd class. It is thought that the more honourable conditions of service which are now in force in the medical department of the French army will induce young medical men holding University degrees to join the corps in future who would have declined to do so under former arrangements.

Strength of
the Corps of
Military
Surgeons in
France.

The army medical recruits enlisted for service by the means just enumerated, are required to maintain the Corps of Military Surgeons of the active army (*Corps des Médecins Militaires*) at its proper strength. The strength of the corps, all grades included, was fixed by law in 1882 at 1,300, and this was the regulated number of the corps in 1889. In case of mobilisation, the cadre of the Corps of Military Surgeons would be completed by the surgeons of the reserve, and by those of the territorial army, who are under other and special regulations.

The Special
Military
Medical
School
at the
Val-de-Grâce.

The special Military Medical School at the Val-de-Grâce has yet to be described. This school differs essentially, in its purpose and organisation, from the military medical schools which have just been referred to. They were schools at which the pupils resided, or to which they were attached, while they were acquiring the amount of knowledge which would enable them to pass the successive tests which were obligatory before they could obtain the diploma of a Doctor in Medicine. While they remained at these schools they studied their profession under conditions similar to those under which medical students acquire a knowledge of the medical sciences in England, as they are still doing at Lyons, with the sole exception, that they have been all the time under military control and discipline, and that the expenses of their education have been more or less completely defrayed by the Government under certain conditions of contract. The school at the Val-de-Grâce is a school for the special application of the general professional knowledge which has been thus gained, and is therefore analogous, in its general principles and purpose, to the Army Medical School at Netley.

Its
institution
in 1850.

The existing school at the Val-de-Grâce was instituted by a decree in the year 1850, and in it was designated the Practical School of Military Medicine (*École d'application de la Médecine Militaire*), and was described as being established for the purpose of causing Doctors in Medicine admitted for service in the army to pass at it one year's "stage." In a decree of 1852, by which the organisation of the school was determined, it was described as the Special School of Military Medicine and Pharmacy (*École spéciale de Médecine et de Pharmacie Militaires*),*

* There are two classes of Stagiaires at the School:—" *Les Médecins Stagiaires*," Medical Candidates for Appointments, and " *Les Pharmaciens Stagiaires*," Candidates for appointments as Pharmaciens. These latter in the French Service more nearly agree with the English Apothecaries of former days, than with the Dispensers in the British Medical Service of the present time. In the remarks in the text the Medical Stagiaires only, as a rule, are mentioned or referred to.

and its purpose was referred to as being to complete the practical instruction of young doctors of the Faculties of Medicine seeking entrance into the Corps of Army Medical Officers (*Corps des Officiers de Santé Militaire*). In a subsequent decree, dated June, 1856, at the close of the Crimean War, when the establishment of the school was increased, and its organisation improved, its objects were described to be the initiation of the "Médecins Stagiaires" into the specialities of the exercise of their art in the army, to complete their practical instruction, to make them acquainted with the special maladies which have a predominance, or tendency to predominance, in armies, with the means of their prevention, and to give them a thorough knowledge of the regulations, laws, and decrees which govern the medical service in its relations with the army at large. Successive improvements in details of the school have been made since those dates, and it is maintained by those best acquainted with the establishment, that this progressive evolution has been attended by very favourable results.

Objects of
the School.

Although the purposes of the two principal Military Medical Schools in France, and in England, are identical, viz., to secure for the public service thoroughly capable medical officers trained in the special duties of the branch of the military service in which they are destined to act, and well prepared to meet the varied emergencies that may possibly occur in the course of their service, yet it will be seen that the systems by which these objects are sought to be attained in the two countries, differ in some essential particulars. By the French system, the majority of the candidates for military appointments are relieved of the expense of obtaining their professional education. The Government gives the pupils (*élèves de santé militaire*), gratuitously, the whole of their medical instruction, from the first rudiments taught in the Medical Schools which they attend, to the advanced examination at a Faculty or University by which they obtain their Doctor's Degree; and, subsequently, after the Doctorat is acquired, the State continues to supplement, free of cost, the general education now possessed, by a special training in the particular duties of the branch of the public service in which, in the future, he will be occupied. For all this expenditure, the Government requires an engagement of service for a fixed period, and, in default of the engagement being kept, requires the money expended on education to be repaid to the State. According to the British system, a candidate for a Medical Commission must get his education, and his licenses to practice medicine and surgery at his own expense, and only gives him, at the cost of the State, that supplementary education which is essentially requisite to fit him to perform, intelligently, the special work he is called upon to do in the public service. The French system of undertaking the cost of the education, from first to last, necessarily entails heavy demands on the public purse, and it is questionable whether the State secures for itself as many advantages in return, as the British

Its corre-
spondence in
purpose with
that of the
Army Medical
School at
Netley.

Important
differences in
the systems
of educating
Military
Medical
Officers in
France, and
in England.

Government does by its less expensive plan. I had a conversation on the subject with a very experienced officer at the Val-de-Grâce, who has been concerned, for a long time, with military medical education in France, and he told me he was inclined to believe the English system to be the most advantageous, irrespective of questions of cost. He thought that, if the preliminary medical education were obtained by the *élèves* at civil schools, wholly under civil direction, they would be more thoroughly grounded in professional knowledge; and that, as regards military discipline, the habit of which is one of the chief alleged advantages of the existing system, his impression was that those who have come to the Val-de-Grâce, as Civil Doctors in Medicine, have been quite as amenable to military rules, as those who had received their medical education under military supervision and restraint.

I will now proceed to give an account of the plan of organisation and particular arrangements for carrying on the studies at the French Army Medical School.

Organisation
of the Military
Medical
School at the
Val-de-Grâce.

No pupil can be received at the School without the presentation of his diploma, proving that he has got the degree of Doctor in Medicine, or of Pharmacien of the 1st Class, or without fulfilling all the other conditions required by the regulations. On arrival, he is medically examined by one of the Staff of the School told off for the purpose, who has to be satisfied that the candidate is physically fit for military service. If the examining officer discovers the apparent existence of a disorder, or infirmity, such as might lead to an officer being placed on half-pay, it is his duty to propose the presentation of the candidate before the Special Military Invaliding Committee, if the candidate is already under engagement, or proposes that his admission should be postponed if the candidate is not engaged. If the disorder should be a curable one, but likely to occupy a long time in the treatment, the admission of the pupil is adjourned. Every case of the kind has to be fully reported to the Minister of War.

Personal Staff
of the School.

The Personnel of the School is divided into two Sections:—
(A) the Staff of the School for Administration and Discipline, and (B) the Teaching Staff.

Adminis-
trative Staff.

The former Section (A) consists of—

- 1 Médecin-Inspecteur, Director.
- 1 Médecin-Principal, 1st Class, Assistant-Director.
- 1 Médecin-Major, 1st Class, Librarian and Conservator of the Collections.
- 1 Médecin-Major, 1st Class, Major, for Discipline.
- 3 Médecins-Aide-Majors, 1st Class, Superintendents for Discipline.
- 1 Purveyor, 1st Class, in charge of Matériel and Paymaster.

The latter Section (B) consists of—

6 Professors.

8 Assistant-Professors (*Professeurs-Agrégés*).

Teaching
Staff.

The Subordinate Staff of the School (*Le petit état-major*) is composed of—

1 Purveyor's Assistant.

1 Serjeant Hospital Attendant (*infirmier de visite*).

5 Serjeants of the Hospital Corps as Clerks for Records and Correspondence.

1 Serjeant-Instructor in Fencing (*Maître d'Armes*).

7 Corporals of the Hospital Corps, to assist as Clerks for Records and Correspondence.

12 Privates of the Hospital Corps, 1st and 2nd Class.

Subordinate
Staff.

The Subordinate Civil Agents are—

1 Laboratory Assistant.

1 Doorkeeper at the Office of Direction.

The general administration of the School is placed in the hands of a Director (*Le Directeur de l'École*), who is appointed by Presidential Decree on the proposal of the Minister of War. He is vested with much the same powers as those which are embodied in the Senate of the British Army Medical School. The present Director is Médecin-Inspecteur Gaujot. In his capacity of Director, he exercises authority over the personal Staff of the School, and over all parts of the school service, including the departments of administration, instruction, and discipline. He is in the same position as regards responsibility, authority, pay, and emoluments, &c., as the Directors of the Schools of the other Services of the Army. All orders, whether affecting the School generally, or special branches of it, emanate from him, and he makes all requisite arrangements that special circumstances not provided for in the School Regulations may need. Immediately under him is an Assistant-Director (*Sous-Directeur*), through whom, under ordinary circumstances, he receives the reports of the different members of the School Staff. In case of urgency, he receives the reports direct. He has the power of granting leave of absence within certain limits to the personnel of the School, and all proposals for advancement, or rewards, among them, whether military or civil, must be initiated by him. He appoints, suspends, or dismisses, such employés and subordinates as are not appointed by the Minister of War direct. In fact, on the spot, he represents the Minister of War, with whom he corresponds direct, and to whom he addresses, after each stage, observations on the conduct, studies, and health of the Stagiaires, and general working of the School. An official residence is provided for the Director within the precincts of the Val-de-Grâce.

System of Ad-
ministration.

The Director
of the School
and his
functions.

The Assistant Director of the School—at present Médecin Principal 1st Cl., A. Badour—is at the same time the Principal Medical Officer of the Military Hospital of the Val-de-Grâce.

The Sub-
Director of
the School.

He, like the remainder of the officers of the school, is nominated by the Minister of War. He is not only the medium of communication, as before mentioned, between the Director and all parts of the service of the school, but he is in direct administrative charge of the discipline and maintenance of order in the school. The personnel of the school is under his immediate supervision and orders. In the absence of the Director he takes his place. He is not charged with any part of the teaching, but he is Director of Studies (*Directeur des Études*), and in this capacity exercises a general supervision and control over all that concerns the teaching and practical instruction at the school. One of his special functions is to watch that all the resources of the hospital, as regards the patients in it, are turned to account for the clinical instruction of the Stagiaires, and to this effect he arranges for the Stagiaires being present at all surgical operations, and all clinical expositions in the lecture theatre (*conférences cliniques magistrales*). He settles the days and times of these *Conférences* according to reports which he receives from the medical officers treating the cases, and from the professors and assistant professors of the school. If the assistant director is absent, the Médecin Principal highest in grade, or the senior officer present, acts in his stead.

The Major and Superintendents.

The Major and Superintendents are in direct executive charge of the discipline and good order of the Stagiaires, and watch over them in the discharge of their routine duties. These officers, as well as the purveyor and librarian act in conformity with the rules which govern all military schools in France, modified only by the special regulations affecting the interior economy of the Medical School in which they hold their appointments.

Three Special School Councils.

A particular feature of the School of Application at the Val-de-Grâce is the existence of three Committees or Councils, which form part of its constitution. These Councils are concerned in the management of the school, and meet at occasional intervals for the transaction of business. The Director of the School presides over each of them. They are (1) the Council of Improvement (*Conseil de Perfectionnement*); (2) the Council of Administration (*Conseil d'Administration*); and (3) the Council of Discipline (*Conseil de Discipline*). Each Council has its particular composition. (1). The Council of Improvement meets at least twice a year, but can be convoked at any time that the Director thinks fit. It is composed of the Director himself, President; of the Assistant Director and the Professors of the School; together with an Assistant Professor who is designated each year by the Director to act as secretary. This Council gives its opinion, at the same time stating the grounds upon which the opinion is formed, on all topics connected with the studies pursued at the school, and on any extraneous educational matters that may be submitted for its consideration by the President or one of its members. If its deliberations lead to a proposal for modifying the programme of work, or for a re-arrangement of the employment of the time at disposal for

Council for improvement.

study, the minutes of the meeting are annexed to a request conformable with the proposal, and the whole is submitted by the Director of the School to the Minister of War. (2). The Council of Administration is composed of the Director of the School, President; of the Assistant Director; of the Major, who is charged with the duty of formulating the matters which the Council has to consider (*rapporteur*); the Purveyor and Paymaster; the Senior Professor and one other Professor. This Committee acts under the general regulations for the administration of army schools, so far as concerns the charge of equipment and property, and the disbursement of money. (3). The Council of Discipline is composed of the Director, President; the Sub-Director; one Professor, designated for the year by the Director; and of two Médecins Principaux or Majors from the garrison of Paris nominated by the Minister of War. This Council is charged with the task of promoting all measures which are necessary for the maintenance of order. Any Stagiaire who has committed a fault grave enough to justify his dismissal from the school must be brought before the Council of Discipline, and should the dismissal of the offender be proposed, the proposition is submitted together with particulars of the case to the Minister of War, who decides on the proposal. In the event, however, of any serious disorder or of collective manifestation or fault, the Minister of War on the report of the Director of the School, without the intervention of the Council of Discipline, takes such measures as he may judge proper in the interest of discipline.

Adminis-
trative
Council.

Disciplinary
Council.

The influence of these Councils in effecting improvements in the organisation and working arrangements of the school will be better understood on mentioning that the Director of the School, Médecin-Inspecteur Gaujot, also holds a seat in the Special Technical Committee of the direction of the Army Medical Service at the War Ministry; and further, that this direction is charged, under the immediate orders of the Minister, with the treatment of all questions having reference to the personnel, matériel, and arrangements of the whole medical service, including the arrangements of the Military Medical School of Applied Science at the Val-de-Grâce.

The Stagiaires, or candidates, are under constant supervision. It is the duty of the three Assistant Surgeon Majors (*Médecins Aides-Majors*, 1 *Cl.*), who have been before alluded to, in rotation to act as Orderly Officers (*Surveillants de service*), and to see that all orders are duly entered in the order book. The officer on orderly duty is responsible for the discipline, dress, and correct conduct of the Stagiaires, and for the proper condition of the places frequented by them. He has to supervise them in their work, and in the different exercises of the day. If anything is done by them gravely affecting good order or discipline, he is required to bring it to the notice, as a matter of urgency, of the Sub-Director, or, in his absence, of the Director of the School. The Orderly Officer sends in a report each morning at a fixed hour, to the Sub-Director, and accompanies

Supervision of
the Stagiaires
or Candidates
for Appoint-
ments.

him with the report to the Director. It is also the duty of the Orderly Officer to visit any of the Stagiaires who are sick, and, if necessary, to take steps for their admission into the hospital.

Housing of
the Stagiaires.

Quarters are not provided for the Stagiaires at the Val-de-Grâce. They procure lodgings in the neighbourhood, and are restricted, as regards distance, to a radius of ten minutes walk from the establishment. On the 5th of each month, at morning roll-call, each Stagiaire must produce a receipt attesting that the hire of the lodging has been paid.

Messing of the
Stagiaires.

Neither do they take their meals together, as the *éièves* do at the Military Medical School at Lyons, nor is there at the Val-de-Grâce any Mess like the Medical Staff Mess at Netley, at which commissioned officers of various grades dine together in common with the candidates for commissions. The Stagiaires take their meals, a certain number together, at Pensions, the number of which is determined by the Director of the School. The tariff of prices must also receive the approval of the Director. Each table at which the Stagiaires breakfast and dine together must have a President, who is responsible that order and proper conduct are preserved, and who must present on the second of each month, the table account book for the inspection of the Sub-Director, in order that he may verify the payment of the monthly account. Each table has also a Vice-President who acts in case the President is absent. The names of the Presidents and Vice-Presidents, who are changed every month and are selected by the Stagiaires who board together, must be submitted on the last day of each month to the Aide-Major on duty at the morning roll-call. Their duties begin on the first of each month. No Stagiaire can change his pension without previously obtaining the sanction of the Sub-Director, and it is the duty of the President of each table to notify to the Sub-Director any changes that may occur at the pension where he is in charge. All the Stagiaires who take their meals at the same pension are alike subject to one rule at the establishment. They must take two meals every day at the pension, *fête* days and days when a Stagiaire is on guard, excepted. On such occasions, and on warning the master of the pension the evening before, the day's or half-day's absence entitles the Stagiaire to a deduction in proportion on the cost of the pension. If the family of a Stagiaire is living in Paris, he may take his evening meal with his relatives provided he obtains the sanction of the Sub-Director, but he must take his morning meal with his comrades.

Uniforms of
the Stagiaires.

The Stagiaires while on duty in the hospital and in the school must all appear in uniform. There is a distinct uniform for the morning, the *tenue d'école*, or *tenue du matin*, and one for the afternoon, the *tenue du jour*, the latter being worn from one o'clock. There is also a full dress uniform, the *grande tenue*, and the riding-school dress, or *tenue d'équitation*. The morning uniform consists of tunic, madder-dyed trowsers, forage cap, boots, or plain ankle boots, buck-skin or chamois-coloured gloves, white from one o'clock, in addition to the foregoing, the

sword must be worn. In the full uniform which is worn on Sundays and fête days, the goat-haired shoulder cords are replaced by embroidered shoulder straps. For the riding school the morning uniform is used, but, instead of the trowsers, breeches fastening at the knees and long riding boots are worn. The school or morning uniform is allowed to be worn outside the establishment on ordinary days till five o'clock. After five o'clock, and also on Thursdays and other holidays, except fête days, either the *tenue du jour* with the sword must be worn, or civilian clothes. When out of school and not on duty, the Stagiaires are authorized to wear civil dress, but it must be suitable, not such as to occasion equivocal observations.

Regulations regarding dress of Stagiaires.

The Stagiaires are subject to five various grades of punishment. Every infraction of the Orders and Instructions contained in the School Regulations and Order Book is punished according to the gravity of the fault, and no excuse is admitted for ignorance of orders. The grades of punishment are as follows:—(1) Simple arrest. Three days of simple arrest entail the loss of one day's leave of absence during the vacation. (2) Close arrest, within the locality of the school. Close arrest incurred three times entails being put in the School Orders. (3) Being put in Orders. (4) Confinement in a military prison. The sentence of military imprisonment repeated three times becomes a motive for dismissal. (5) Dismissal. (Every absence from roll-call, from a lecture, or from clinical instruction, when permission has not been officially obtained, renders the defaulter liable to the stoppage of one day's pay, in addition to the disciplinary punishment.)

Grades of disciplinary punishment at the School.

The teaching staff of the school, as before mentioned, consists of six Professors and eight Assistant Professors. One of the latter has been recently added to the establishment to fill the Chair of Bacteriology (*Microbie*). The table which follows shows the subjects of the Courses of Instruction which the Medical Stagiaires will go through at the Val-de-Grace during the present year (1890), together with the ranks and names of the Professors and Assistant Professors who at present hold the respective Chairs:—

The Professorial Staff.

No.	Subjects of Instruction.	Grades and Names of Professors.
1.	Clinical Medicine	Prof. Méd. Prin., 2 Cl., Laveran; Prof. Méd. Prin., 1 Cl., Kelsch (in succession to each other); Asst. Prof. Méd.-Major, 2 Cl., Duponchel; Asst. Prof. Méd.-Major, 2 Cl., Antony (in succession to each other).
2.	Clinical Surgery	Prof. Méd.-Major, 1 Cl., Delorme; Asst. Prof. Méd.-Major, 1 Cl., Moty.
3.	Clinical Ophthalmology	Prof. Méd. Prin., 1 Cl., Chauvel.
4.	Venereal and Cutaneous Diseases (clinical).	Asst. Prof. Méd.-Major, 2 Cl., Nimier; Asst. Prof. Méd.-Major, 1 Cl., Vautrin (in succession to each other).
5.	Military Surgery, including Wounds and Injuries of War.	Prof. Méd.-Major, 1 Cl., Delorme; Asst. Prof. Méd.-Major, 1 Cl., Moty.

Subjects of Instruction during the present year 1890.

No.	Subjects of Instruction.	Grades and Names of Professors.
6.	Diseases and Epidemics of Armies.	Prof. Méd. Prin., 1 Cl., Kelsch; Asst. Prof. Méd.-Major, 2 Cl., Antony.
7.	Legal Medicine, Military Medical Legislation, Service, and Administration.	Prof. Méd. Prin., 2 Cl., Du Cazal; Asst. Prof. Méd.-Major, 2 Cl., Duponchel.
8.	Optometry, Ophthalmoscopy, Otoscopy, Laryngoscopy.	Prof. Méd. Prin., 1 Cl., Chauvel; Asst. Prof. Méd.-Major, 1 Cl., Vautrin; Asst. Prof. Méd.-Major, 2 Cl., Nimier.
9.	Toxicology and Chemistry, applied to special wants of armies.	Prof. Pharm.-Major, 1 Cl., Bureker; Asst. Prof. Pharm.-Major, 2 Cl., Gessard.
10.	Surgical Anatomy, Surgical Operations and Apparatus.	Prof. Méd. Prin., 1 Cl., Chauvel; Asst. Prof. Méd.-Major, 1 Cl., Vautrin; Asst. Prof. Méd.-Major, 2 Cl., Nimier.
11.	Military Hygiène	Prof. Méd., Prin., 2 Cl., Laveran; Asst. Prof. Méd.-Major, 2 Cl., Burlureaux.
12.	Bacteriology, Histology, and Pathological Anatomy.	Asst. Prof. Méd.-Major, 2 Cl., Vaillard.
13.	Mental Diseases (clinical)	Asst. Prof. Méd.-Major, 2 Cl., Burlureaux.
14.	Ambulance Drill and Exercises	Asst. Prof. Med.-Major, 1 Cl., Moty.

Instruction in
Equitation
and Sword
Exercise.

The instruction in Fencing and Sword Exercise, as well as the instruction in the Riding School, are not shown in the foregoing table. The instruction in sword exercise is given between 4 and 5 o'clock on every day of the week, excepting on Thursday and Sunday; the instruction in the Riding School takes place in the mornings of Thursday and Sunday.

Duties of the
Professors and
Assistant
Professors.

The duties of the Professors and Assistant Professors are stated in the School Regulations to consist in giving to the Stagiaires the courses of lectures and practical instruction, &c., set forth in the programme, which shows the manner in which the time of instruction is to be distributed, and in carrying out the special orders of the Director and Sub-Director of the School on these matters. The military medical officers while engaged as Professors receive the pay of their army grade augmented by one-third, in accordance with the rule which governs the pay of officers of all arms of the service while acting in professorial capacities at military schools. The Professors and Assistants must all wear their military uniform while on duty, whether in the lecture room or elsewhere.

Their pay and
remuneration.

Selection of
Professors.

The professors are selected from among medical officers who have formerly been assistant professors at the School, or who are actually holding the position of assistants. They are nominated by the Minister of War, after selection from two lists, each of three candidates, one list being submitted by the "Council of Improvement" (*Perfectionnement*) of the School, the other by the Direction of the Medical Service in the Ministry of War. They must be of the grade of Médecin-Major, 1 Cl., at least, and of Médecin-Principal, 1 Cl., at most. The Professorships are ten years' appointments. A professor has frequently passed to be Director of the School, and the Director of the

Their
elevation to
higher official
positions.

School to be at the head of the Medical Service in the Ministry of War. The present Director was Professor of Military Surgery in the School a few years ago. The Assistant-Professors are nominated through competition only. Médecins-Majors, 1 Cl. and 2 Cl., are admitted to the competition. The duration of their appointments as Assistants is fixed at 5 years.

The portion of the year devoted to teaching is divided into two periods. These periods have usually each lasted four months; but for the present year (1890), the first period is one of four months, from the 1st of January to the 30th of April; while the second period is one of six months, from the 1st of May to the 31st of October. A printed table is prepared to show the order in which the courses of instruction are to be given, together with the period of the year, the days of the week, and the hours appropriated to each subject. This table is signed by the Minister of War, and by the Médecin-Inspecteur, Director of the School. Although the whole "Stage" lasts from the 1st of January to the 1st of November, the lectures on particular subjects last only for given portions of this period; some from the 1st of January to the 1st of May, others from the 1st of January to the 1st of July, others from the 1st of May to the 1st of September; while the practical instruction and exercises on certain special subjects last from the 1st of January to the 1st of November. Ambulance drill, surgical operations on the cadaver and applied chemistry, are principally carried out at the latter part of the stage, from the 1st of May to the 1st of November.

Periods of study appointed for the present year (1890).

The following is an outline of the manner in which the time of the Stagiaires is usually passed at the School. There is a roll-call every morning at 7.15 o'clock. After the roll-call, the Stagiaires go to the hospital and take part in the clinical service of the wards, until 9 o'clock. On three days of the week clinical lectures are given from 9 to 10 o'clock, and on these days the Stagiaires assemble at the prescribed time in the Amphitheatre. At 10 o'clock they leave to go to their pensions for breakfast, and return to the School at noon. From noon to 5 o'clock there are lectures, conferences, practical instruction, sword exercise, &c., conformably to the programme for the employment of the time. Twice a week the Stagiaires go in detachments to the Chief Military Riding School of the Garrison of Paris to be exercised in horsemanship.

Daily routine of duties of the Stagiaires.

Each Stagiaire, on arrival at the school, is provided with a locker in a lobby set apart for the deposit of articles of clothing, the key of which remains in his possession until he leaves the school. He also receives a kind of blouse made of canvas (*un sarrau*) to wear over his uniform for its protection, while he is engaged in his various kinds of work at the school.

He has the use of the library at certain hours of the day. The library is contained in two rooms, which communicate with each other. The rooms are all that could be desired for purposes of study; they are well lighted, largely stocked with books, are comfortably furnished, and are fitted with every necessary

The Library at the Val-de-Grâce.

appliance for reading and writing. A Médecin-Major, 1 Cl., on the retired list, is the librarian, and he has under his orders a Serjeant as assistant. The same officer is also the Conservator of the Museums and various collections at the school.

Pay of the Stagiaires.

The Stagiaires receive their pay monthly in arrear. The net amount is 241 fr. 50 c., about £9 12s. sterling a month. The sum allowed for a Stagiaire's outfit of uniform at starting is 350 fr., about £14.

Medical equipment of the Stagiaires.

Each Stagiaire must be provided with a regulation case of pocket instruments, a dissecting case, ophthalmoscope, and stethoscope. He has also to provide himself, at his own cost, with a note-book of a certain pattern, in which he has to note observations on the cases of patients who are selected for the purpose by the chief of the division of the hospital in which the Stagiaire is serving.

Supply of Subjects for the Practice of Operative Surgery.

As far as I could learn, there is an ample supply of cadavers for the practice of surgical operations and for such regional anatomy as is carried out at the school. The sentimental objections to utilising the bodies of the dead for this essential part of a surgeon's education, which are so great a hindrance to the practise at Netley and elsewhere in England—objections which are really in the highest degree detrimental to the interests and welfare of the living—hardly appear to be encountered in Paris. At the Val-de-Grâce, the distribution of the cadavers is made personally by the Professor of Surgical Anatomy, who directs what regional parts are to be prepared, and superintends the dissections. None of the hospital staff, nor any Stagiaire, can proceed to make an autopsy, or to practice an operation, on a cadaver, without the authority of the Sub-Director being duly notified to the Professor of Surgical Anatomy. The professor sends a return every day to the Sub-Director, indicating the resources of the dissecting-room in order that measures may be taken in time for insuring the continuance of the anatomical work, or, in its stead, the substitution of other practical work. Each Stagiaire is required to give a demonstration, under the direction of the chief of the anatomical department, of the region which he has prepared, and every fortnight, the "Dissection Register," in which a daily entry is made of the work done by the Stagiaires, is sent to the Sub-Director, or Director, for his scrutiny and signature. The practice of surgical operations on the cadaver is directed by the Assistant Professor, and especial attention is given to familiarising the Stagiaires with the operative proceedings which are the most commonly employed in military practice.

Regulations regarding the practice of Dissection and Operative Surgery.

Practice of Ambulance Manœuvres.

The practice of stretcher drill and other ambulance manœuvres forms an important part of the special education of the Stagiaires. I visited the shed in which a collection of ambulance conveyances, stretchers, litters, cacolets, and wheeled vehicles, available for this instruction was kept. The Stagiaires are required, each in turn, to take command of their comrades, or of soldiers placed at their disposal for the purpose, when learning ambulance drill. There are two concise manuals, with copious

illustrations issued by the Ministry of War, bearing on ambulance topics; one, the "*Manuel du Brancardier Militaire*," affords instruction on the transport of wounded between the fighting line, dressing stations, and field hospitals, by means of stretchers, mule conveyances, and ambulance wagons; the other, the "*Manuel de l'Infirmier Militaire*" has reference to the duties of hospital orderlies in the fixed and stationary field hospitals, as well as in the service of the active field hospitals, including the care of the wounded at their collection in the field and during their transport to the rear.

As regards the practical instruction in applied chemistry and hygiene, the manipulations are ordinarily directed by the Assistant Professor, but also, when thought necessary by the Professor of Chemistry, as well as by the Professor and Assistant Professor of Hygiene. There is only one chemical laboratory, and this is under the direct charge of the Pharmacien-Major, who is the Professor of Applied Chemistry and Toxicology, but it is placed, when required, at the disposal of the Professor of Hygiene for the experimental illustrations belonging to his course of instruction. The Stagiaires are directed to exercise as much economy as possible in the expenditure of re-agents and chemical substances, as well as to take the greatest care of all instruments and laboratory utensils; while any instances of injury or waste, entailing expense, if caused by abuse or carelessness, are charged to the Stagiaires concerned. Each year the Stagiaires visit, under the direction of the Professor and Assistant Professor of Hygiene, the greatest number practicable of military establishments possessing interest from the point of view of military hygiene (barracks, old and modern, prisons, hospitals, military bakeries, etc). These excursions are settled by the director of the school on the proposition of the Professor of Hygiene. On the occasions of such visits the Stagiaires are required to prepare reports on the matters brought to their notice.

The Stagiaires are classified on entering the school according to the results of a special entrance examination, but their positions on the list are subject to changes made at certain intervals during the period of their stay in the school. These subsequent re-arrangements of the list are made on the 1st of March, 1st of May, and 1st of July, and are determined by the marks obtained by the Stagiaires as the results of oral examinations and practical exercises during the two months which precede the several periodical classifications. Before quitting the school there is another and final classification of the Stagiaires. This classification depends partly on the estimate of the work done by each Stagiaire during the whole time he has been at the school, and partly on the estimate of his merit as shown by the results of a searching examination at the conclusion of his stage (*examen de sortie*).

This exit examination is of a very extended character and is specially organised. The fact of the school being above all intended to familiarise the Doctors of Medicine admitted as Stagiaires with the special conditions presented by military

Practice of
Chemical and
Hygienic
Manipulations.

Visits of the
Stagiaires to
Military
Establishments.

Classification
of the
Stagiaires.

Examination
of the
Stagiaires
before they
quit the
School.

medicine, in its broadest sense, from the points of view of hygiene, treatment, and military regulations, is constantly kept in mind, and the tests to which they are subjected at this final examination are essentially practical in their scope. The trial is conducted in seven sections, and is based on the following subjects:—(1) Clinical examinations of medical and surgical cases; (2) Regional Anatomy and Operative Medicine; (3) Epidemiology and Military Hygiene; (4) Wounds and injuries of war; (5) Expert proceedings in Military Medico-legal matters; (6) Chemistry in its applications to Hygiene and Legal medicine; (7) Laws, Regulations, and Instructions concerning and affecting the Army Medical Service and its Personnel.

The jury under whose supervision the final examination is conducted, and upon whose decisions the results of the trials to which the *Stagiaires* are subjected depend, is presided over by the chief of the Military Medical Corps, the *Médecin Inspecteur Général*, or, in his absence, the Senior *Médecin Inspecteur*. The jury is divided into two sections, a Medical and Surgical section so far as the "*Médecins Stagiaires*" are concerned; there is a third section for the "*Pharmaciens Stagiaires*," but the proceedings which concern these officers, as before mentioned, are not included in this report. Each section of the jury is composed of an *Inspecteur*, as president, of either medical or surgical origin according to the nature of the section; a professor, in the department of instruction referred to in the examination; and of two medical officers, of either medical or surgical origin according to the section, who must be unconnected with the school educational staff. The president of the whole jury takes the presidency of either the medical or surgical section, according to his own professional origin, and at the close he combines and centralises the results of the two sections together.

The lists of questions and subjects on which the *Stagiaires* are to be examined are officially settled, and are printed together in a separate pamphlet (*Questionnaires des Examens de Sortie*). They are very numerous, and are all based on the subjects which have been taught in the courses of instruction. At the time of the examination, the *Stagiaire* draws by lot the question he has to reply to, or the subject he has to work out, whether the answer has to be given in writing, orally, or to be practically demonstrated. The clinical tests are conducted in the same way: certain patients are selected, and the *Stagiaire* draws by lot the names of the patients whose cases he has to diagnose and report upon. The examination is a public one. The *Stagiaire* may be questioned on the subject to which he has replied, or on any other subject similarly drawn from the official Book of Questions.

The test examination in the medical section consists (1) of a clinical inspection of two patients in the medical division of the hospital. Diagnosis, and treatment recommended, must be stated; the trial must be completed within 30 minutes at most. (2). A composition on a given subject of military hygiene and

Mode of
conducting
the Final,
or Exit
Examination.

Constitution
of the
Examining
Juries.

The Book of
Examination
Questions.

The
Examination
in the Medical
Section.

epidemiology, for which three hours are allowed. The papers must be written, without reference to notes or books, under the supervision of a member of the jury, who, when the compositions are finished, places them under a sealed cover and transmits them to the President of the Section. Afterwards, at a meeting of the jury, each Stagiaire receives his composition from the President, and reads it before the jury, who then assign a certain value to it. (3). Examination of an individual with regard to his physical fitness for military service; of a subject with regard to invaliding and discharge from service, claim to retiring pension or renewable gratuity; preparation of the medical certificates regarding the foregoing, together with an oral justification and explanation of the conclusions set forth in them. Half an hour at most is allowed for this test.

The examination in the surgical section is conducted under similar conditions. Under (1), two surgical patients take the place of the two medical patients; under (2), the written composition is on a subject connected with military surgery; under (3), instead of the tests in military medico-legal matters, each Stagiaire has to perform two surgical operations selected by the jury, after having given an exposition of the anatomy of the region on which the operations are practised. The duration of this trial must not exceed 30 minutes.

The
Examination
in the Surgical
Section.

The juries are furnished at the time of the examination with the marks previously gained by the Stagiaires in the different branches of teaching during the year. The marks handed in to the jury superintending the medical section include those which have been awarded by the Professor of clinical medicine, by the Assistant Professor in charge of the clinical practice, and by the Assistant Professor in charge of the pathological demonstrations; as to military medicine, those which have been awarded by the Professor of Epidemiology, and those by the Professor of Hygiene; and as regards practical exercises, the marks given by the Professor charged with teaching Ophthalmoscopy, and those allotted by the Assistants who deal with the practice in the use of the ophthalmoscope, otoscope, laryngoscope, in the chemical applications of chemistry to army medicine and in military medico-legal medicine. The marks awarded by the Professor of Military Administration are also furnished to the Medical Section.

The marks handed in to the jury controlling the surgical examination include those awarded by the Professor of Clinical Surgery, by the Assistants charged with the surgical clinical practice, and with the demonstrations of bandaging and use of surgical appliances. Marks are also furnished by the Professor of Anatomy, the Professor of Operative Surgery, and the Assistants belonging to these two courses of instruction. Additional marks are supplied by the Professor of Military Surgery, and by the Assistant Professors charged with practical exercises in this branch, and with the ambulance drill. Marks for equitation are also furnished from the Riding Master to this jury.

Mode of arriving at estimates of the respective merits of the Stagiaires.

The mean of these previously gained marks is taken as one figure of valuation, the mean of the number of marks awarded by the juries at the final examination forms a second figure of valuation, and these being added together, their mean gives the co-efficient of the general value of the results of all the examinations. The classing of the Stagiaires takes place at a meeting of both sections of the Jury, and the results are then forwarded to the Minister of War with a report on the general bearing of the Stagiaires, their professional knowledge, practical ability, and with any other observations that the course of the examination may have seemed to render advisable.

Subjects of examination at the Val-de-Grâce, and at Netley, similar, but the examination differently conducted.

It will be seen, from the foregoing description, that the subjects on which the Stagiaires are tested at the final examination are very similar in nature to the subjects on which the surgeons on probation at Netley are examined before they leave the Army Medical School; but that the manner in which the examination is conducted differs in a variety of details, while it is much more formal in character and much more prolonged in duration of time.

Efforts made by the French Government to maintain professional excellence among Medical Officers after leaving the Val-de-Grâce.

The efforts to stimulate and develop the professional knowledge of the medical officers do not cease on the part of the French Government with the departure of the Stagiaires, or Médecins Aides-Majors as they become, from the Val-de-Grâce. Efforts are continued by various means to ensure a high standard of scientific attainments among them. To encourage attention to professional work two prizes consisting each of a gold medal of the value of 500 francs (£20) are accorded annually to the best work on questions of military medicine and surgery. The names of all medical officers who in the opinion of the Medical Technical Committee at the Ministry of War have particularly distinguished themselves by their professional reports, or services, are published for the information of the Army in the Official Gazette (*Journal Officiel*). No Médecin-Major, 2nd Class, is promoted to the 1st Class, or Médecin-Major, 1st Class to the grade of Médecin-Principal, without passing successfully an examination of fitness. With regard to the Médecins-Major, 1st Class, the examination is optional, who may decline it, but in doing so they forfeit further promotion. With those of the 2nd Class the examination is compulsory. The subjects of examination are laid down in special Ministerial circulars. Medical Officers on return from foreign service, as well as occasionally under other circumstances, are permitted to refresh their recollections and to make themselves acquainted with fresh advances in science at the school at the Val-de-Grâce when they can be spared from their ordinary medical duties. The nominations and promotions in the Order of the Legion of Honour are very liberally dispensed among the medical officers of the army, not only for services in the field, but also for conspicuous scientific merit and special devotion to professional duties.

Recent Improvements at the Val-de-Grâce School.

Since I commenced writing this report, Médecin-Inspecteur Dr. Gaujot, the present distinguished Director of the school at

the Val-de-Grâce, has been kind enough to furnish me with information respecting the school arrangements for study during the present year (1890), and on many other points of interest regarding the establishment. Much of this information I have already embodied in the report. It will be useful, however, in conclusion, to indicate those modifications, recently introduced in the teaching of the school, to which the Director, Dr. Gaujot, has been good enough to inform me, he attaches most importance. They are the following:—

1. The institution of a Bacteriological Laboratory. Arrangements have been made for the performance of one of the particular functions of this new laboratory—the examination of samples of water and dust from suspected localities, sent under orders of commanding officers—being carried on permanently. The Bacteriological Laboratory.
2. The considerable development of the study of Microbes. This study is now pursued by all Stagiaires, and by many of the older surgeons. Study in Microby.
3. The extension given to the practical teaching of hygiene by demonstrations in the Museum, and in outside establishments where matters of hygienic concern can be observed and studied (systems of sewerage, provision supplies, drainage operations, &c.). The Stagiaires are now conducted systematically by their Professors to these establishments. Hygienic demonstrations at special military institutions.
4. The institution of an advanced course of instruction designed for Médecins-Majors on the active list. These medical officers are ordered in successive parties, each 12 in number, to assemble at the Val-de-Grâce for purposes of study, especially to become acquainted with new scientific processes in bacteriology, ophthalmoscopy, operative medicine, and hygiene. Each party of medical officers so sent receives leave of absence from their ordinary duties for six weeks. Advanced courses of instruction for Médecins-Majors.
5. The creation of a Central Vaccine establishment at the Val-de-Grâce, at which the lymph is taken direct from the cow. In addition to its use for teaching purposes, this vaccine institution affords a permanent supply of animal lymph for the whole of the army of Paris, and for a considerable number of troops elsewhere in France and in the Colonies. Institution of an Animal Vaccine Establishment.

