PART I. INAUGURAL DISSERTATION

HISTORICAL AND OTHER NOTES ON THE ADMINISTRATION OF THE ANATOMY ACT

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PART II.

SOME APPENDIGES RELATING TO THE HISTORY AND RECENT ADMINISTRATION OF THE ANATOMY ACT.

INAUGURAL DISSERTATION.

HISTORICAL AND OTHER NOTES ON THE ADMINISTRATION

OF THE ANATOMY ACT.

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Inaugural Dissertation.

Some historical and other notes on the administration

of the Anatomy Act.

The study of Human Anatomy has endured, through the centuries, more vicissitudes than that of any other of the allied sciences on which is based the progress of medical education. It has attained its exalted position, both as a pure science and as a field of practical training in the Science and Art of Medicine, in spite of many difficulties - dangers even - endured by its exponents, and praiseworthy indeed are the high aim and dauntless zeal by means of which these drawbacks have gradually been overcome.

Some of these difficulties, varying with the progress of time may here be briefly reviewed.

For several centuries after medicine, as a Science, had emerged from the parent art of magic, feelings of superstition and reverence, inter-mingled, still forbade the anatomical examination of the dead body and thereby barred, for the time, the only sure path to accurate knowledge of the "Seats and Causes of Disease". The progress of Medical Science, as far as human anatomy was concerned, had then to depend solely on the meagre basis of comparative anatomy, the fleeting revelations acquired by primitive surgeons, or the fitful observation, by way-side or gallows, of dissevered human remains.

Later still, religious prejudice, though shorn betimes of superstitious beliefs, for long maintained a ban on the dissection of the human body, regarding it as "a desecration of the Temple

Vide "The growth of the Art of Medical Illustrations": Appendix I.

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of The Holy Ghost" - a phase represented in the well-known picture of Vesalius, confronted by a crucifix, hesitating to employ the scalpel poised in his eager hand.

Reverence for the dead, apart from Religion, but coupled with ignorance which could not realise the distinction between dissection and mutilation, also proved a stumbling-block in the pursuit of this knowledge; until recent times, the only relaxations from this attitude to appear permissible were the various statutory agreements which legalised the anatomical examination of the bodies of executed criminals. Such restrictions - as, for instance, "the body of one malefactor" allowed annually by the Town Council of Edinburgh to the surgeons "to make an anatomic of efter he be deid" - afforded to the teachers scanty opportunity of extending their knowledge of the details of human anatomy and to the pupils no opportunity whatever of verifying them, with the result that the physicians were left to solve the intricacies of diseased organs whose normal structure they had never mastered and the surgeons had to cut their way among the tissues of the living without first testing their skill on those of the dead.

Towards the end of the eighteenth century, when the Medical Schools of this country increased beyond all previous knowledge - both as regards the number of the students flocking to them and the enterprise shown in extending the facilities for medical education - the supply of bodies for dissection became, more than ever, a clamant need. It was not altogether

S Vide "Body Snatchers - and After": Appendix II.

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unnatural that the impetuous enthusiasm of their youthful disciples should have undertaken, by any means in their power, to provide the teachers with the <u>material</u> indispensable for the proper study of Anatomy.

Thus arose the phase of "body-snatching", deplorable from every point of view except that of the good to humanity which was its ultimate aim: there can be no doubt that this practice, when carried on in the first instance by the students themselves, was based on the purely humanitarian motive of expediting the relief of suffering by widening the field of medical knowledge. This phase, however, soon became more deplorable still, when stray non-professional aiders and abettors of the students, finding there was "siller in't", leagued themselves into the new and degraded "profession" of body-snatching @ The more effectively these men plied their gruesome trade the more strongly were forged the links in the chain of prejudice drawn by the public around the practice of anatomy; and when, early in the nineteenth century, the most deplorable stage of all was reached - the revolting murders ad hoc committed by Burke and Hare in Edinburgh and by Bishop and Williams in London anatomy had become anathema to the general public and the horror suggested by it reached an intensity which still reverberates to this day.

So strong has been the grip maintained by these outrages on the mind of the public that they have not yet lost their popular appeal, and, in the hands of the novelist and journalist, interest in them is periodically re-awakened, as, for instance, by the recent publication of Roughead's full and circumstantial account of the Edinburgh murders in the series of "Notable British Trials'.

♥ <u>Vide</u> "The Aftermath of Body Snatching": Appendix III.

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Greatly to the credit of the public. however. these dark hours in the history of Anatomy in this country were to herald the dawn of a more enlightened attitude to its importance and needs, for they led directly to the introduction and passing of the comprehensive Anatomy Act (2° and 3° Gulielmi IV.Cap. 75 This Act was the first to legalise the practice of of 1832). Anatomy on a scale calculated to remove, once and for all, the disabilities of the medical schools; its eloquent preamble strove to remove the misapprehensions which had gathered round the subject and emphasised the sinister results which would follow if adequate facilities for this work were not provided for physicians and surgeons in the early years of their training. After making ample regulations for the reverent treatment of the dead in duly licensed premises under the charge of specially licensed teachers, the chief executive Clauses of the Act (VII and VIII) gave the legal custodians of any dead body the power to permit its anatomical examination prior to interment, subject to the strict observance of any wishes expressed to the contrary by the deceased during life or by surviving relatives. These Clauses encouraged living people to "direct" that their bodies might be thus utilised, and bestowed on the authorities of all institutions wherein unclaimed dead are occasionally to be found the legal power to promote the advance of medical knowledge in this way.

The provisions of the Act immediately relieved the difficulties of the medical schools, owing, for the most part, to the favourable view taken of their new powers by many of the legal custodians of the unclaimed dead, and no period of serious

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shortage of subjects made its appearance, nor had any call to amend or improve the Act arisen, for nearly four-score years after it had come into operation.

Throughout that time the onus of organising supplies for each school lay almost entirely on the shoulders of the individual Licensed Teachers, whose influence, naturally, could only be exerted over comparatively limited areas; it entailed constant effort and frequent anxiety, with each re-opening Term.

Gradually, with the opening of the twentieth century, it was becoming borne in on the teachers that their limited channels of supply were steadily running dry, and that, with the ever-increasing need for subjects for Operative Surgery® in addition to those required for Anatomy, the only hope of maintaining a proper standard of teaching lay in co-operation in the matter of improving supplies and in the making of an organised effort to secure the assistance of new or improved legislation to that end.

The first steps towards new legislation were taken at a joint meeting of the Anatomical Society with the Anatomy Section of the British Medical Association at the Annual Meeting in London in 1910, when the late Professor A. M. Paterson was President and I was Secretary. As the result of a discussion on the vexed question of the difficulty of securing an adequate supply of anatomical material in all parts of the country, a special meeting, to which all Licensed Teachers were summoned, was held in the Royal College of Surgeons, London, in the following

Vide. Professor T. H. Bryce's remarks on the Administration of the Anatomy Act: B.M.A. Discussion: Appendix IV.

an "Anatomical Supply Committee" was appointed, to December: gather full information anent the problem and to recommend. if possible, some efficient remedy.

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The Anatomical Supply Committee.

The late Professor Alex Macalister was elected Chairman of this Committee, which was representative of teachers of Anatomy and Operative Surgery in all parts of the (then) United Kingdom, and in His Majesty's Services; it included Professors Arthur Thomas (Oxford), R. W. Reid (Aberdeen), Arthur Robinson (Edinburgh), the late A. M. Paterson (Liverpool), Johnson Symington (Belfast), A. F. Dixon (Dublin), F. G. Parsons (London), Mr. W. McAdam Eccles (London), Col. E. M. Pilcher The Committee held (R.A.M.C.) and myself as Honorary Secretary. many meetings and conducted widespread investigations into the conditions of anatomical supply both in this and in other countries, and early in 1912 issued a Report® summarising these and recommending that His Majesty's Government be approached by a deputation to explain the difficulties commonly experienced in the working of the Anatomy Acts of 1832 and 1871, and to suggest suitable amendments or the introduction of a new Act. A second meeting of Licensed Teachers, to which this Report was submitted, empowered the Committee to organise as influential a Deputation as possible, on the lines suggested.

Deputation at the House of Commons. 1912.

In December 1912 the Rt. Hon. Reginald McKenna, M.P., then His Majesty's Secretary of State for the Home Department, received, at the House of Commons, this Deputation which he described as "literally and truly unparalleled and unprecedented".

♥ Vide. Appendices V and VI.

Itre later Act was a short Act extending the time during which a subject tright retrain unburied.

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It included representatives from every University and Medical Licensing Incorporation in the United Kingdom; in most cases their vice Chancellors attended to represent the former, and their Presidents the latter; it was introduced by the Rt. Hon. Dr. Christopher Addison, then recently elected a Member of Parliament; the pressing needs of the anatomy schools, and the disastrous effects that would befall medical education and practice unless efficient teaching in Anatomy were maintained, were explained in speeches by the late Principal Sir William Turner, the late Professor Alexander Macalister, Sir Rickman Godlee, the late Sir Arthur Pearce Gould, Sir Thomas Barlow, Colonel Skinner Principal Sir Donald Macalister and the Very Reverend Principal In reply, the Home Secretary declared Sir George Adam Smith. himself deeply impressed by these speeches and he carefully discussed the points raised; he favoured a further attempt to improve the administration of the existing Act rather than run the risks of introducing a new one, but he undertook to face the latter course if nothing resulted from the efforts that would be A verbatim account of the speeches made to improve the conditions. was recorded by a Government Stenographer and a copy of this was forwarded to me as Secretary of the Committee.

1913. Conference at the Home Office.

At Mr. McKenna's request a sub-committee of the Licensed Teachers met representatives of several Government Departments in conference at the Home Office early in 1913. While the Scottish Office and the Scottish teachers were represented at

● <u>Vide</u> Appendix VIII for short abstracts of these speeches.

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this Conference, the Irish Office, though expressing the desire to be informed of its views, did not send a representative. At this Conference several suggestions for improving supply were discussed, there was general agreement that the institution of a "notification fee" was desirable, to be paid to the executive officers who were responsible for the careful and exhaustive enquiries which led to the certainty of an unclaimed body being available, but any practical outcome was delayed owing to the principal official concerned being engrossed by new legislation in another sphere, and no improvement had taken place when the following year witnessed the outbreak of war.

Though sadly disappointed by this delay, the Committee could not then press this matter on a Government suddenly burdened by such tremendous problems and responsibilities. Moreover, the mobilisation or voluntary enlistment of many students in the early days of the war and, later, the practical conscription, under the Derby Scheme, of all medical students who were fit for military service, lessened the difficulties of the schools. It became necessary, indeed, to close some of the sources of supply and also, owing to the surplus which had accumulated, to introduce an Order extending by twelve months the period during which a subject might be retained before burial.

1918. The Post-War Crisis.

The end of the war, however, led to a crisis in the difficulty of supply. The return of large numbers of students who had happily been spared to resume their studies, and, concurrently, a large increase in the number of new students,

♥ Vide Appendix VII

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led to the crowding of dissecting rooms by men and women for many of whom no subjects could be provided for practical instruction in Anatomy, while the teaching of Operative Surgery on the cadaver had to be entirely suspended.

Late in the year 1918, thus faced with difficulties even greater than when they commenced their labours, the Committee again approached the Home Office and were referred from there to Sir George Newman, one of the Medical representatives of the Government at the Conference in 1913, who favoured steps being taken to transfer the administration of the Act to the Board of Education on the ground that this Ministry had become closely concerned in the problems of medical teaching through the allocation of grants, which would largely fail of their purpose if an adequate supply of material for anatomical teaching and research were not maintained in the Universities and Medical Schools.

Meantime, while steps in this direction were in progress, suggestions had reached the Committee from various quarters that as this problem closely affected, through the provision of properly trained medical men and women, the health and well -being of the country, it should be undertaken by the new Ministry of Health then in process of establishment, and early in 1919 the Committee decided to recommend that course. A Memorandum was prepared by the Committee, embodying all their previous efforts to find a remedy for the deficiency in anatomical supplies, and this was forwarded to the Prime Minister and other members of His Majesty's Government with the two-fold recommendation that the administration of the Anatomy Act should be among the powers and duties to be

♥ Vide Appendix VIII.

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transferred to the Ministry of Health and to the Scottish Board of Health, and that the Act should be amended in such a way that it would adequately effect the purpose for which it was originally framed. In the first of these recommendations the Committee was assured of the cordial support of the Rt. Hon. Dr. Christopher Addison, the first Minister of Health, who was personally acquainted with the difficulties of the situation through his former experience as a Professor of Anatomy.

1919. Transference of the Administration of the Anatomy Act from the Home Office.

In September, 1919, an "Order in Council" was prepared, advising the transference recommended by the Committee. Owing to the somewhat cumbrous procedure required by both House of Parliament, the Order did not take effect until 17th May, 1920, on which date it received the approval of His Majesty The King in Council, but the Sub-Committee of Licensed Teachers, who had lately lamented the loss of their Chairman, the late Professor Alexander Macalister, and had appointed Professor Arthur Thomson in his stead, had meanwhile been invited to meet the Minister of Health in conference, in November 1919, to discuss immediate steps that might be taken to remove the difficulties of the Medical Schools of England and Wales. The problem, as it affected the Medical Schools of Scotland, was the subject of discussion, about the same time, between the Scottish Office and the Scottish Board of Health, when it was decided that in Scotland the administration of the Act should remain as heretofore in the hands of the Scottish Office.

Svide Appendix IX.

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Administration of the Act by the Ministry of Health.

The Minister of Health explained to this Conference that the transference of the administration of the Act by Order in Council gave the Minister of Health no powers to alter in any way the regulations of its various Clauses, and he proposed, in the first instance, to inaugurate a systematic approach to the legal custodians of unclaumed bodies; for he was assured, by enquiries he had made, that if all such as were available were placed at the service of medical education, the requirements of the Schools could be adequately met.

This approach was carried on systematically and zealously for some months, under his instruction, by several accredited Officers of the Ministry (who, however, as laymon, had no personal experience of the real difficulties of the problem), but, unfortunately, it met with no success. Again it appeared as if no remedy could be found short of new legislation, and Dr. Addison engaged the help of the legal advisors of the Ministry in drafting a new Bill in which it was proposed to make the Minister of Health the legal custodian of the bodies of all persons dying without known relatives to claim them. This would involve the removal of the custody of these from the various Poor Law Authorities in whose Institutions they are for the most part to be found, and it was realised that the imposing of any compulsion on these authorities would certainly be met by organised It was therefore decided, before proceeding with opposition. the new Bill, to make another effort to realise the purpose of the existing Act by inviting myself to accept office as a Medical

(Vide Appendix X.

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Officer of the Ministry, in the hope that close acquaintance with all the preceding negotiations would enable me effectively to explain, to the authorities concerned, the difficulties of the administration of the Act, and, by long experience in the practice of Anatomy, to impress on them their opportunity of advancing the cause of medical education. That office I agreed to accept in July 1920, as soon as I could be released from duties at St. Bartholomew's Hospital Medical School, and after consultation with Dr. Addison and his Chief Medical Officer, Sir George Newman, proceeded at once to organise a new campaign on lines approved by them.

Thus, for the first time in the history of the administration of the Anatomy Act in England and Wales, a Government Department undertook the responsibility not merely of supervising the Anatomy Schools, but also of helping them to secure an adequate supply of the material which they require.

The gravity of the situation at that time may be judged by the following figures. The University of Cambridge had 3 adult subjects available for the tuition of a **class** of 280 students; Liverpool had 2 for 253; Cardiff 2 for 220; Bristol 2 for 118; Manchester 6 for 250; while the London Medical Schools suffered from an equally marked deficiency, the other Provincial Universities were more adequately supplied; the new campaign was therefore directed in the first instance on improving the conditions in London and the foregoing provincial areas - conditions which had led inevitably to a return to primitive methods of instruction; oral demonstrations had to be substituted for dissections, eked out by the bodies of still-born

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children and monkeys, as in the days of Galen. In this course of action much help was derived from the previous labours of the London Anatomical Committee (Chairman, Sir Arthur Keith; Secretary, Professor F. G. Parsons), of the Provincial Committee (Chairman, Professor Arthur Thomson, Oxford; Secretary, Professor J.S.B. Stopford, Manchester) and of Mr. W. O'Sullivan, who, on the staff of the Home Office, had for many years carried on the work of the Anatomy Office prior to his transference, with that Office, to the Ministry of Health.

The policy adopted by the Ministry closely followed that pursued by the Licensed Teachers over the long period since the introduction of the Anatomy Act, by appealing to the legal custodians of unclaimed bodies for the use of these for anatomical examination. This policy was based on careful consideration of the view that the systematic use of such bodies for medical education was the method least likely to give offence to the sentiments of living persons.

When the number of unclaimed bodies to be found in every Poor Law Institution was much larger than in recent years, the Licensed Teachers had had little difficulty in securing all that they required, thanks to enlightened views and willingness to help on the part of the authorities of the one or two Institutions in their immediate neighbourhood whom it had not been a difficult matter for themselves to approach. But, in recent years, many factors - too numerous even to mention here - had reduced the number of unclaimed in all parts of the country, and the Ministry undertook the task, now grown quite beyond the power of individual teachers, of increasing as far as possible the number of Unions, and County and Borough Asylum Committees, willing to

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co-operate in the administration of the Act. In addition to breaking new ground in the area allotted to each school, the executive officers of existing sources, from which the supply had been steadily declining, were also visited, in an effort to counter the effect of lack of interest or changes of <u>personnel</u> among these officers.

In approaching a new source, the procedure was to arrange a preliminary interview with certain of the executive officers and then, unless advised against it on the ground of local prejudice, to submit through the Clerks a letter from the Minister requesting the co-operation of their authorities. This letter tilly explained (a) the meaning and need of Anatomy and Operative Surgery, (b) the benefit to humanity to be derived from a sufficiency of subjects for that work from among the unclaimed dead in Institutions such as their own, (c; the strict regulations of the Anatomy Act which ensure reverential treatment of these bodies in the course of anatomical examination, under the supervision of the Ministry, (d) the subsequent interment, as required by the Act, in every case according to the rites of the religious persuasion of the deceased, (e) the information required, and recorded in the Ministry, of every detail of these proceedings and (f) final notification by the Ministry of all these details to the Officers of the Institution from which the body has been With this official letter was sent a covering letter removed. from myself offering to attend, to give any further information A similar appeal was sent by the that might be desired.

• Vide Appendix XI.

Board of Control, at the request of the Ministry, to the Medical Superintendents of all the County and Borough Asylums of England and Wales, for presentation to their Visiting Committees. In this letter, the Board, recognising the greater value to medical science of a protracted anatomical examination by a group of medical students than a post-mortem examination by an individual medical officer, advised that the routine performance of the latter should be foregone in the case of any unclaimed subject which might be available for the schools.

These letters, in many cases, immediately accomplished Their clear statement of the facts all that was required. removed misapprehensions from minds which had hitherto been full of prejudices, based on ill-founded rumours and fears; in particular, their assurance that everything in connection with the removal, dissection and subsequent interment of these bodies was carried out reverently and according to statute - and that any one of them was instantly accessible for immediate interment if need be - removed the widespread idea that when a subject reached a dissecting room it passed beyond the control or supervision of any authority, was simply "cut up" and that no one ever knew what became of the remains; thus, their appeal was sometimes met by an immediate resolution in favour of co-operation: in not a few cases, indeed, the favourable vote was unanimous.

More often, however, the desire was expressed for further information, and I had to attend public meetings in all parts of the country and submit to close cross-examination on the details of the Act and on the practice of Anatomy in the Schools.

Ovide Appendices XII and XIII.

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In supporting the letters from the Minister of Health and the Board of Control, I never hesitated to make a perfectly frank statement of the real meaning of Anatomy and of the methods by which subjects were obtained; care had always to be taken to give no ground of offence to sentiments and susceptibilities, which though ignorant or uninformed might be none the less genuine. The lines of the discussion varied greatly, reflecting closely the temperament of the locality - crisp and matter-of-fact in the Northern Counties, lethargic and deliberate in the Eastern, emotional and keen in the Welsh. With some, the presence of an emissary of a Government Department appeared to prejudice the case from the beginning; but, with most, the backing of the Ministry evidently supplied an authority which had been lacking when similar appeals had been made by the Licensed Teachers I found, indeed, that the suspicion that teachers themselves. reaped financial profit from these transactions had not been entirely dissipated by all the assurances given by them to the contrary.

Help was frequently forthcoming from the presence on Boards and Committees of men and women who, in their own University careers, had opportunities of becoming acquainted with dissecting-rooms and the methods and aims of Anatomy; or of others, who bore grateful testimony to the saving of their own or other lives by serious operations skilfully performed; and of others, whose reading in the annals of crime enabled them to recite some of the horrors which the Anatomy Act had been framed to prevent.

The main objection met with - an objection always based on a complete misunderstanding of the grounds of the appeal -

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was that any decision to allow the unclaimed bodies of inmates of Poor Law Institutions to be used for the purposes of medical education would lead to a deepening of the taint of pauperism and would interfere with the beneficent work of these Institutions, not only by spreading alarm among the inmates but also by preventing others in need of relief from seeking admission on account of the fear of what might happen to their bodies after Noel's well known refrain from "The Pauper's Funeral" death. "Rattle his bones, etc" - was often quoted (and nearly as often attributed to Thomas Hood :) . "Why should the pauper be sent to do overtime on the dissecting-room table?" was another Terrible stories of what went attempt at scathing criticism. on in an anatomy department and what happened to the remains were told with all the habitual assurance of hearsay evidence - that the bodies, for instance, were ultimately "thrown to the crows"!

With this objection was almost invariably linked the admenition that the Ministry would be more honourably employed appealing for the bodies of the rich and well-to-do. The Chairman of one Board went so far as to say that it was because they were <u>afraid</u> to ask for the bodies of the rich that they asked for the bodies of the poor: The matter could only too easily be speciously turned into a question of class distinction, even of politics; a Labour Member of one Board voiced refusal as "the policy of <u>our Party</u> in this matter, etc. etc." In contrast to this last instance I wish gratefully to acknowledge the help received from the enlightened attitude of Labour and Socialist members on many Boards.

In answer to this objection it was urged that though intimately acquainted with the Officers of many Institutions which had been helping in this way for many years, I had never

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known a single instance of any such fear existing among the inmates; indeed I knew several cases of immates, without any friends in the world, expressing the wish that their bodies might be sent to a medical school; it was always pointed out, too, that Clause VII of the Act amply protected any persons, rich or poor, who, if apprehensive of this happening, had only to express their objection thereto, verbally or in writing, to make it certain that their wishes The main ground of the would be carried out after death. appeal, however, was always the most potent argument with which to meet this objection - that it was no question of poverty or riches, but only a question of whether the body was or was not claimed for immediate burial by relatives. It could be pointed out too that the "unclaimed" in Poor Law Institutions were not always paupers; some of them were known to be possessed of considerable property, both "personal" and "real". If in any Institution there were two dead bodies, the one known to be possessed of means but without a relative to claim the body, the other a pauper but claimed by a relative for burial, the former would be available according to the Anatomy Act, but the body of the pauper would not. In answer to the attempt to give the question a political aspect it was only necessary to ask "what had party politics to do with a matter the sole aim of which was to benefit suffering humanity without any distinction of class?"

Among the minor objections, and alternatives proposed, it was interesting to meet again - as if the horror of bodysnatching and the Edinburgh and London murders had never been the suggestion that the bodies should be <u>bought</u> after death,

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or even bargained for in cash before it; in ignorance of the fact that a Clause had been inserted in the Anatomy Act providing that this indispensable part of medical education should no longer be stained by association with criminality of the worst type - repealing the legality of dissecting the bodies of persons who had been executed, it had sometimes been suggested that these should still be used; the "little knowledge which is a dangerous thing" cropped out frequently in suggestions that all the required knowledge of the intricacies of the human frame, and all the elaborate technical skill expected of the modern surgeon, could be gained equally well through the use of X-Rays or models of wax and other materials.

The discussions were often protracted, often adjourned through several consecutive meetings owing to the press of other business and sometimes carried beyond the Boards and Committees officially concerned, by members In reply to disapproving representing outside associations. protests, publicly lodged by these representatives, my offer to discuss the matter with their executives was usually cordially met; in this way I have frequently been engaged explaining the policy of the Ministry, on this question, to various branches of The Independent Labour Party, Trades Councils, Operatives' Leagues and Ex-Service Mens' Associations. By this means it had often eventually been possible to secure the rescinding of unfavourable and the substitution of favourable resolutions.

These public discussions led to considerable ventilation of the matter in the Press. While local newspapers were content, for the most part, to publish full reports of the

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proceedings without comment, their leader-writers sometimes cordially endorsed the favourable resolutions of Boards of Not so, however, some London papers which obviously. Guardians. because the matter involved a Government Department, sought to make political capital out of these reports by seizing on the rare records of any refusal of the Ministry's request, publishing these while ignoring the much more frequent agreements. For instance, in the case of two neighbouring Boards in an eastern county, the refusal of one by a small majority was re-iterated, while the agreement of the other, by a majority of twenty-five to one, was completely ignored. Also, the frequent use of sensational and misleading head-lines in London journals inimical to the Government - e.g. "Only A Pauper Whom Nobody Owns", "Conscription Of The Dead", "The Ministry of Health as Body Snatchers", "New Workhouse Terror" - compared sadly with the matter-of-fact headings of the local press, e.g. "Unclaimed The needs of Medical Science. Interesting discussion Bodies. Guardians". The editors who tolerated the bv publication of such head-lines lent themselves too easily to the disgraceful view that an official request whose sole aim was to benefit suffering humanity might be developed as a pawn in the Fortunately, whatever may have been the game of party politics. effect of these in the political sphere, they never appeared to have exercised the slightest influence on the minds or actions of the authorities concerned.

It was always necessary, after the authorities had given their sanction, to make sure, by personal interview, that their executive officers were thoroughly conversant with the permissive clauses of the Act and with the necessary procedure.

Tide Appendices XIV, XV and XVI.

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It was manifest, at these interviews, that the assurance of their being informed in due course of full particulars of the interment, and of the possibility of a subject being returned at any time for immediate burial if claimed, added greatly to the confidence of these Officers in carrying out the arrangements. This was a very important point; for undoubtedly it is the "weak spot" of the Anatomy Act that while its permissive clauses were obviously framed in the belief that <u>all</u> unclaimed bodies would be made available, it entails no compulsion either on legal custodians or on their executive Officers; this is the chief difference between the Anatomy Act of our country and the Acts regulating the practice of anatomy in our Colonies and in foreign lands.

1920-1922. The Effect.

The results to be recorded amply justify the policy of the Ministry, and the conviction of the first Minister of Health that all the requirements of the Medical Schools could be met, for the present, without resource to new legislation.

The number of Institutions, Asylums, etc., which have thus been added to the former sources of supply, has been greatly increased and from these a large number of additional subjects have been distributed to the Schools. The number of subjects to be recorded would have been larger still, had it not actually been found necessary, before long to "close down" supplies temporarily in the areas of several of the Universities, owing to the exhaustion of storage arrangements, etc. Thus had the wheel

Tide Appendix XVII

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come full circle - a short time before it had been a question of closing down the Schools:

Translating the figures, recorded in the Ministry, into terms of the usual allocation of "parts" in the classes of Anatomy and Operative Surgery, it may be said that within two years some 12,000 students enjoyed for one term at least the opportunity, they would otherwise have lost, of thorough tuition and experience in the fundamental science of their profession; in terms of the ultimate benefit to be derived by the people of this country, the improvement is incalculable.

The Future.

With regard to the future, it is well to realise that there are difficulties ahead. That anatomical subjects will be required by Medical Schools as long as disease prevails, is as fundamental a fact as that knowledge of the alphabet is the first step in any scheme of education, elementary or advanced. There can be no doubt, however, that all the beneficent measures now directed towards improving the conditions of life are resulting in a gradual diminution in the number of <u>unclaimed</u> dead. This diminution may soon become so marked that even the introduction of a new Anatomy Act, so framed as to make the transference of these to the Medical Schools a <u>compulsory</u> measure, might fail to provide the necessary number of subjects. Whence then are they to be obtained?

This question points to the consideration of a very important aspect of the administration of the Act, to which, so far, only passing reference had been made. Clause VIII of the Anatomy Act expressly provides for the carrying out of the wishes of persons who "<u>direct</u>" that their bodies shall be used for anatomical

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examination after death. In past years many such, rich and poor alike, have advanced the cause of medical education by so doing. Even those most bitterly opposed to the idea of permitting the dissection of other persons have often been heard to state that they felt no objection whatever to their own bodies In this sentiment lies the crux of the being used in that way. whole question of the voluntary bequest of bodies for the benefit of medical science, and due regard is paid to it in the safeguards which qualify Clause VII giving any surviving relative the right to amul the bequest by requiring the body to be interred without such examination. Anomalous as this may appear, at first, when contrasted with the binding nature of any bequest of personal property, it is surely realised, on second thoughts, as a right and proper protection of the sentiments of living people regarding the disposal of the dead which may be a much deeper matter to them than their interest in merely material The suggestion has frequently been made that an affairs. adequate supply of subjects would be assured were such bequests made legally binding on Executors, through an amendment of the Not long since, Lord Rowallan, in a letter to the Act. "Times", expressed his surprise on learning that he could not legally bequeath his body for the relief of human suffering by the advancement of medical knowledge, and his opinion "that no obstacle should be put in the way of those who feel that being serviceable is everywhere honourable to a man while he lives and to his body when he has left it .

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No suggestion which has yet been made, however, can overcome the <u>present state</u> of public sentiment and the difficulty that, while a deceased person has passed beyond any concern in

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the matter, there may be living persons whose feelings it is not right to disregard by insisting on the manner of the disposal of his or her remains. At the root of these feelings may lie, no doubt, the aftermath of the sinister days when the horrors of "body-snatching" - and the exaggerated horrors of the dissectingroom which gathered round them - were a present fear to every household in the land. There still persists, too, that view of the sanctity of the corpse which makes the idea of its dissection appear irreverent: the life of the great Vesalius, the Father of human anatomy, was sacrificed to that feeling close on four hundred years ago, and it has not entirely disappeared even in our own day.

While it is probably true that any member of our own profession - though most familiar of all, therefore, with the meaning and purpose of Anatomy - can think with equanimity of his own body being dissected, should it be required for the advancement of Medical Science, it is probably equally true that, in the present stage of our outlook on these matters, he cannot think exactly in the same way with regard to the bodies of his nearest relatives. How much more likely must we expect this to be true in the case of laymen, in general, until such time as the sting of death and the victory of the grave shall have lost their potent influence on the human mind.

But signs are not wanting that we are steadily advancing towards a day when the <u>material</u> aspect of death will be seen in proper focus, and surely in these there appear the assurance that the teaching of Anatomy, if its requirements be adequately presented, -will never lack the public support it needs. The ever increasing

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number of persons who direct that their bodies shall be premated is one sign of the gradual progress of enlightened views as to the facts of death; and it should not be difficult to persuade such persons, and their relatives, of the advantages to madical science and their fellow-men which would result from a prior Not infrequently directions are left anatomical examination. by Will, through fear of premature burial, for the opening of an artery after death; might not the frame of mind which thus, though only to a slight extent, had surmounted the view that a compar must be left inviolate, be stimulated without much difficulty to direct the more complete dissection which would bestow greater assurance by the opening of every artery?

The grim horrors of War, too, have done much in our time. to hasten the "dying of death"; little had it mattered, surely, compared with the revered memories of the fallen, whether the flesh was torn by wounds or dissipated by a shell, whether the mortal remains lay in the Abbey or in a distant field in Flanders.

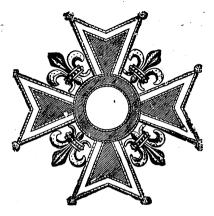
May it not be true that those signs of an altering outlook on the fact of death are to be interpreted as the gradual growth of a common-sense view which will gradually remove the mass of distressful mystery which has for so long surrounded it? And may not one result be, that, when the need arises, all the bodies required for medical study will be freely supplied by voluntary In the vanguard of such dedication will be found, dedication? without a doubt, the men and women of the medical profession.

aley Macphail april 1923

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PART II. APPENDICES, I TO XVII





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Vol. XIV.

March, 1912.

No. 1

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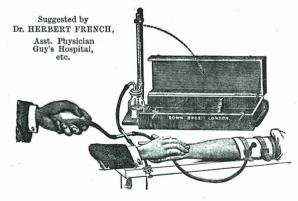


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THE GROWTH OF THE ART OF MEDICAL ILLUSTRATIONS.

It may be surmised with assurance, I think, that the art of Medical Illustration is as old as the art of Medicine itself, though the comparatively late discovery of the art of printing, and the imperfect preservation or loss of early manuscript works, leave us still in the region of surmise. The only suggestions of a very early use of medical illustrations have been handed down to us, at second hand, in printed copies of the works of Galen and other ancient writers; but there can surely be little doubt that the elaborate illustrations frequently found in these, had their prototypes in manuscript drawings of some kind—apt if rude. For the feelings of our earliest ancestors

THE CHARING CROSS HOSPITAL GAZETTE.

in the healing art, must have been similar to those which make us use and value illustrations so much in our own time, namely, that through the added help of the eye complex details can be given a greatly strengthened appeal to the mind and memory, the grasp of them intensified, and their recollection made more sure.

The dawn of this art takes us back to the time before the earliest anatomists had drawn the veil of mystery to any extent from off the human statue; the earliest diagrams known to us are some in which the earliest physicians had mapped out, all over the surface of the body, the exact domain of the heavenly constellations which were supposed to preside over the action of the underlying organs in health and disease. These are to be found, with much curious medical lore couched in Latin verse, in the printed records of the famous Medical School of Salerno, which flourished in the t2th century.

That illustrations were used at a much earlier date than this, however, seems to be proved by some manuscript copies, as well as by the earliest printed works of Galen. Galen himself flourished in the 2nd century, but the earliest printed copies of his work are dated sometime in the 16th century. In these, the illustrations are mostly confined to little vignettes within the narrow bounds of the illuminated capitals heading each section. Within a capital Q, for instance (Fig. 1), Galen is shown demonstrating the anatomy





Fig. 1.

Fig. 2.

of the trunk to two wondering students, and within another letter he is depicted enunciating the signs of pregnancy to the same two students, who,

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THE CHARING CROSS HOSPITAL GAZETTE.

by this time, are represented by the modest artist as looking blushingly aside! The frontispiece to one of the earliest editions of Galen's works, published in Venice in 1586, shows the master engaged in the dissection of a pig, to the delight of an admiring circle of students. Such illustrations, however, are not of the same interest-as if they had formed integral parts of these works as originally given to the world.

The world of medicine was evidently held spellbound for long by Galen's works, for little that was original made its appearance till several centuries had passed. But a worthy old surgeon, John of Arderne, whose manuscript works were published in London between 1307 and 1377, illuminated these by "payntings," as he calls them, constructed under his own guidance; one of these (Fig. 2), painted on parchment, in a work on the treatment of Fistula, represents him curing an imaginary patient, his right hand beckoning (or dilating) a visionary Sphincter, and his left wielding a red-hot cautery !

Though medical authors were very slow in venturing into "fields and pastures new " of exact anatomical delineation, contemporary artists appear to have been much more zealous in investigating and representing the hidden wonders of the human frame. The artists may have owed much to the help of unknown anatomists, but, at one period, they seem to have risen far above the latter in their appreciation and records of the structure of the body. We must remember that, up to the 16th century, dissection of a dead body was a rare and perilous adventure; anatomists and artists alike had to depend for their knowledge on such skeletal fragments as chanced to be thrown in their way. We find a striking reflection of this in the strange series of drawings by which the "Dance of Death" was adorned by a succession of artists. In an edition illustrated by Holbein (the favourite artist of Henry VIII.), published in London in the 16th century, the skeleton figure of Death ismost accurately and beautifully drawn in many varying postures (Fig. 3), sometimes with shreds of muscles, hair, or viscera attached, forcibly suggesting the nature of the material on which the artist had to depend for his "models." I have selected this plate more for its intrinsic beauty than for its anatomical accuracy--witness the easy skill with which Death's strolling player has hitched his fibulæ upwards, out of the way, behind his femora !

It was during this era that Leonardo Da Vinci constructed, in pursuit of his many-sided art, a large number of anatomical drawings of wonderful accuracy, which indicate the careful study of dissections made to display the bones and superficial muscles, the structures, of course, with which an

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Fig. 3.

artist is chiefly concerned. Many of these anatomical studies are to be seen in the Grosvenor Collection of his works; all show striking accuracy of detail and beautiful drawing, though some are very frankly diagrammatic, as, for instance, where the Pectoralis Major muscle is showing, broken up in comb-like fashion to show the exact attachment of its fibres.

Michael Angelo, his even greater successor, was in no way behind him in the careful study of human anatomy. This comes out, in telling fashion, in much of his work; among his charcoal drawings is one, evidently a sketch for his sublime statue of the youthful David, of a lithe living trunk, and by its side a very carefully drawn study of a bony pelvis, showing the pains the artist has taken to secure "truth in the inward parts."

But now, when we turn to the works of contemporary anatomists, we find them presenting a woeful contrast in their rough woodcuts, though, as the 16th century advanced, attempts at greater detail and more artistic representation gradually appear. By the middle of that century, however, the much-to-be-desired co-operation of artist and anatomist became an accomplished fact. Vesalius, the real Father of Human Anatomy, produced in 1543 a truly magnificent work—*De Humani Corporis Fabrica*—the illustrations for which were drawn by Titian or by one of his pupils. This work so far excelled any previous attempt, that it marks a distinct epoch in the art of medical illustrations. In it we witness the first appearance of widespread observations represented with such accuracy and wonderful art as could only

be effected by master minds deeply interested in each other's work. Though the actual part played by Titian himself in the production of this work is much disputed, the powerful design and execution of the frontispiece, in which Vesalius is shown giving a demonstration to a large and variegated assembly, certainly suggests that it is indeed the handiwork of that great master. To cite a single example (Fig. 4), we see displayed, on a statuesque

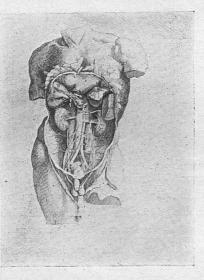


Fig 4.

trunk worthy of a place in any gallery of art, a view of the abdominal viscera which far transcends in detail and accuracy any record in any preceding work; and all the crowded figures in this great work show the same wondrous research and sympathetic drawing.

No subsequent period in the history of medicine is marked by so great an advance in any one of its allied sciences, or in the art employed in their illustration; in these respects no other work stands out so prominently as this, and we can find in many that followed it abundant evidences of the power of its inspiration.

It is very curious to turn from this to the works of Ambrose Paré, published in Paris in 1582. Paré, who was surgeon to Charles the Second of France, is reverently hailed as the Father of French Surgery, and the catholicity of "the Fathers" is shown in the wonderfully wide range of subjects

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treated in his works. But there is a strange disparity in its different sections. In "Anatomy" the inspiration of Vesalius's works is everywhere evident and most of the plates are manifest copies from that source. But in other sections, where his own observations are recorded, many very peculiar illustrations, rudely executed on wood, seem to precipitate us, from the high level attained by Vesalius, back to the days of untrained and primitive execution, and, even more retrogressively still, to the days when scientific imagination was allowed to run very wild.

What could be more ludicrous, for instance, than this picture in the section on "Worms," of an animal declared to have been passed *per urethram*? (Fig. 4A.) Its sharp claws, carrion beak, and eagle eye, make comment

Vermiformis illuuies per vrinam excreta.



Fig. 4A.

superfluous! With a liberal hand he provides equal wonders in other sections; in "Midwifery," the portrait (*sic*) of a very multiparous Englishwoman, said to have increased the population of these Islands by twenty living offspring at one "stroke"; in "Monsters," a stately man headed quadruped is shown being hunted by excited natives through an Indian jungle. When we reach his section on "Surgery," however, in which he was *indeed* a master, all trace of the ludicrous disappears, and we are shown devices and illustrations so advanced in knowledge and execution that we are scarcely prepared to find them within the same buckram boards as the foregoing. Take for instance the plate showing a compound fracture of the arm (Fig. 5), "bound up and seated as is fit" (as the inscription says), which

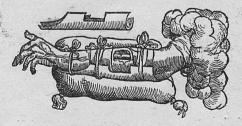


Fig 5.

would certainly pass muster, with very little alteration, among the records of any modern surgical clinic.

No other striking work appeared for some time, though the use of illustrations spread rapidly in all departments of science, hand in hand with great advance in the arts of printing and engraving. In London, in 1675, the Royal Society published a large work by Malpighi with many beautiful illustrations of Botany, Embryology, and Human Anatomy; and that Comparative Anatomy soon began to share in this progress, is seen in a work published by Salmond in Amsterdam in 1691, in which the ducts of the salivary glands, as described by Stenson and Wharton, are shown in a dissection of the head, or "*upper belly*," as it is called, of a calf.

The work of Spigelius, published in Amsterdam in 1745, ranks next to that of Vesalius in the free use of elaborate and artistic illustrations, but though it shows considerable advance in exact observation, the artist employed to illustrate it plays such pranks in posing figures that the result is often much too interesting and suggestive for serious study! In one, for instance, we first wonder which of his garments the model is arranging, before we realise that it is his Trapezius muscle that he has unhitched to display its attachments ! In another (Fig. 6), we see a fascinating female who invites



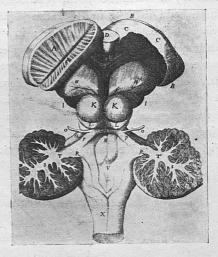


Fig. 6.

Fig. 7.

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your attention to her pelvic viscera with the same pleased air as she would await your verdict on a new gown! Oliver Wendell Holmes, in one of his charming "Medical Essays" alludes to these figures in a happy sentence: "In the giant folio issued from the Press of Amsterdam, lovely ladies display their viscera with a coquettish grace implying that it is rather a pleasure than otherwise to show their lace-like omentum and hold up their appendices epiploicæ as if to say 'Behold our Jewels.'"

From this onwards, there was a rapid increase in the number and variety of illustrated works, gradually extending the accurate delineation of each system and organ, and only a few of these of special interest can be mentioned here.

Among the first to devote special study to the brain was Willis, of Cranial Nerve fame, and a drawing of the base of the brain, the frontispiece to his book published in London early in the 18th century (Fig. 7), is of peculiar interest in that it is stated to be the work of one, "Mr. Christopher Wren"; one wonders if the immortal architect of St. Paul's realised that he was at work here on the design of a *living* Temple far exceeding in beauty and complexity the great monument which he afterwards raised high above the smoke and din of London.

In 1722, Lancisius published a great folio including all the works of Eustachius, who flourished about two centuries earlier, and in this is shown the drawing of the valve guarding the orifice of the Inferior Vena Cava in the heart, one of the many discoveries which have perpetuated the name of that great anatomist.

Santorini's "Observations" published in 1724, show some interesting illustrations of structures associated with his name, particularly one which would seem to be the first showing a skilful dissection of the perineal and urethral muscles: happy the student of practical anatomy of our day, who could demonstrate a compressor urethrae as powerful and complete as the one figured therein !

In 1739, at Leyden, Albinus published another "giant folio" illustrating the muscles, which presents many interesting features. In many cases, a single illustration is devoted to showing the origin and insertion of a single muscle, with great effect; in many, the artist has evidently been given free rein to fill up the background at his own sweet will—as where a half-dissected figure stands "in the limelight" with a wonderful representation of a thunder-storm behind him, while in another the model has reached a still more skeletal state, yet with sufficient strength left to drive a huge rhinoceros into the "wings" 1

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As a last example of the skill of the illustrators of the 18th century, I would mention William Hunter's famous plates of the gravid uterus which exhibit as perfect drawing and engraving as are to be found in the whole range of medical publications.

When considering the great changes which a few centuries witnessed in the advance of medical illustrations, it is interesting to reflect on the great changes in the scenes in which they had their birth. In a volume issued to commemorate a recent centenary of the University of Bologna, an attractive picture (Fig. 8) is given of the Anatomy Theatre as it was reputed to be in the





18th century, showing a very mixed audience of doctors, lawyers, monks, and ladies of fashion, listening to a lecture on anatomy with interest as deep as that with which they might follow a performance at the Opera. Again, in a modern hospital in Rome, are to be seen two interesting frescoes, one representing the great Morgagni, in simple state, feeling the pulse of some poor patient while he meditates "*De Sedibus et Causis Morborum*," the other representing the great Lister, surrounded by white-robed satellites, applying his antiseptic precautions in the course of an operation.

The 19th century presented the world of medicine with a flood-tide of folios, atlases, and finely illustrated manuals, while the dawn of the 20th has witnessed a wonderful enrichment of the scope of the art of illustration through great developments in the use of photography, radiography, colour processes and vitographs. Nevertheless, few modern works can equal the best among the ancient, which we have just passed under review ; and I would refer, in closing, to another significant passage in Holmes's Essay, in which he describes the

pleasure it gave him :---" To lead into the inner sanctum some self-concerned canvasser of recent medical publications, and unfold from its shelves the precious Vesalius or the giant folio of Spigelius, watching with cruel delight the effect of these magnificent works of art on the hawker of the cheap literature that aspired to surpass it."

ALEX. MACPHAIL.

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This must be instance, is outside of oneself, outside of the so-called Ego. fairly obvious when we remember that a person who has had one leg or one arm removed, does not feel that he is any the less himself than he was; his Ego is not lost. The Ego, then, is not situated in any other part of the body than the brain, and as we know, it is even possible to remove considerable portions of the brain without any sensation of loss of the Ego. But to say that the Ego is not effected at all is, to my mind, not correct, for I would ask whet is the peculiar sensation of loss which one feels on entering a

even quite young children, but it is our duty to enquire whether these represent the total, in what way they differ, and what are their various sense-organs. Let us first investigate why the child separates and distiguishes between these five. It is by means of a process which is called introspection or retrospection, according to whether present or past. This brings us into the realm of psychology, and it becomes necessary to roughly indicate the distinction between physics, physiology, and psychology. A study of light waves during their passage to the one is the real of the start of the start

colour vision, not being so sensitive to brightness as are the rods; hence completely colour blind people whose retinæ are composed of rods only, see the world as a series of greys of varying brightness. Again, if we want to see a dim star in the twilight, it is better to look a little to one side of it, for there are no rods but only cones at the area of central vision, the fovea. Of course colour and brightness bear a much closer relationship to one another than do, say sight and hearing, otherwise photography as at present practised

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eing no evidence of the presence of a specific ferment in the blood-stream capable of digesting the syphilitic tissue.

The satisfactory results obtained by these tests in the demonstration of a specific ferment in the blood of pregnant women led to the application of the test in the diagnosis of pregnancy in special cases. In all, eighteen cases were investigated for this purpose, and were as follows:

Suspected ecopic gestation 3; pelvic and abdominal tumours where it was suspected that the whole or part of the tumour might be the pregnant uterus, 6; suspected chorion-epithelioma, 3; chorea in a woman of twenty-one I; heart disease with amenorrhœa, I; nephritis with exacerbation of symptoms and amenorrhœa, 2; late puerperal sepsis, 2.

The optical test was applied in almost every instance, and gave a correct result. There were, however, two failures in the dialysation method, and these occurred in the two cases of inflammatory adnexal disease, where, unfortunately, owing to lack of material, the optical test was not used. A full description of the clinical history of most of these cases has been given by Dr. Williamson in the *Journal of Obstetrics and Gynæcology*, October, 013.

The tests of Abderhalden have been applied to the diagnosis of pregnancy with favourable results, and the principle upon which they are based has since been extended to the diagnosis of cancer (both carcinoma and sarcoma), tuberculosis, and certain nervous and mental diseases. In connection with the latter some interesting observations have been made upon the proteolytic powers of the serum towards various antigen-like substances, particularly testicular, ovarian, and brain-tissue. The sera of cases of dementia præcox when examined in this way gives very striking results as regards the digestion of the above tissues. The serum of a male patient with dementia præcox will digest testicular tissue, whereas that of a female patient under the same conditions splits up ovarian tissue.

This power of digesting the genital gland-tissues does not apply to cases of epilepsy, hysteria, or manic-depressive insanity. When brain-tissue is used (*i. e.* the cortical tissue of the brain) a positive result occurs in epilepsy, particularly when an attack is approaching, also in severe cases of dementia præcox, and in the majority of cases of general paresis. It would appear from these results that in the Abderhalden tests we have a valuable aid in differential diagnosis in psychiatry, more especially in dementia præcox in its early stages.

The results of the Abderhalden method for the diagnosis of pregnancy, and also some pathological conditions, have so far proved reliable. Many other possibilities of the test are foreshadowed, particularly the diagnosis of infectious diseases as well as of organic diseases in various parts of the body. By this test also we may learn more concerning the inter-relationship of the ductless glands, and the part these organs play in disease.

CONCLUSIONS.

(1) The serum of pregnant women contains a specific ferment capable of digesting placental tissue, and this ferment can be detected from the eighth week of pregnancy until ten days after delivery, both by the optical and by the dialysation test.

(2) That both tests should always be applied to the serum from the same case, and that the accuracy of the results depends entirely upon the most scrupulous care in details.

(3) That the tests appear to be of value in diagnosis, more especially in the following conditions :

(a) The early diagnosis of pregnancy.

(b) The differential diagnosis between fibromyomata and pregnancy.

(c) The diagnosis of ectopic gestation.

(d) The diagnosis of chorion-epithelioma.

(e) The presence of retained placenta.

(4) That there is at present no justification for stating that the serum of pregnant women will digest other than placental tissue.

(5) The tests may be applied to the diagnosis of cancer (carcinoma and sarcoma), tuberculosis, and also in various nervous and mental diseases.

(6) The claims of Abderhalden that the optical and dialysation tests are of value in the diagnosis of pregnancy are established.

A CASE OF SEPARATION OF THE LOWER EPIPHYSIS OF THE TIBIA.

By J. V. FIDDIAN, M.R.C.S.

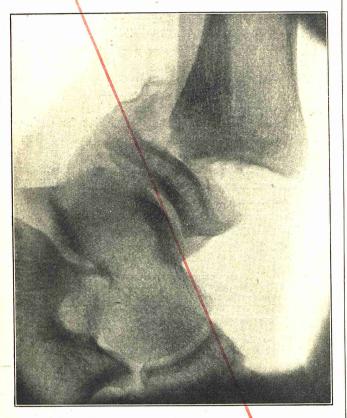
R. D'ARCY POWER has asked me to place on record a case of separation of the lower ephiphysis of the tibia, on account of the comparative rarity of this injury.

The patient, F. W—, a van-boy, æt. 16, was climbing on to his van when his left foot lipped between the spokes of the wheel, and as the van was in motion at the time his foot was severely twisted.

He was admitted with a deformity that looked at first sight like a dislocation backwards of the foot on the leg. There was very little swelling and no eversion or inversion of the foot. Soft crepitus could be obtained. Passive movement at the ankle-joint was painless within a small range. The accompanying skiagram shows the position of the epiphysis before reduction and also the fast that the lower end of the fibula was fractured. Reduction was accomplished under an anæsthetic and after tenotomy of the tendo-Achillis. Poland records forty-six cases of separation of the lower epiphysis of the tibia, twenty-three of which had also fracture of the fibula.

The great majority of these cases occurred between the ages of nine and seventeen years, and forty-four out of the forty six were boys.

According to Poland, the force required to separate this epiphysis is very great, much greater than that required to cause a Pott's fracture. The injury is nearly always caused by indirect violence. The prognosis, with careful treatment, according to the same author, is good, firm union with free



SKIAGRAM TAKEN BEFORE REDUCTION.

movement of the foot being the rule. Arrest of growth is uncommon, but is nevertheless recorded in a few instances, and in these the great feature has been marked inversion of the foot owing to the continued growth of the fibula without corresponding growth of the tibia.

Mr. Power's case was discharged to Swanley after three and a half weeks, and at that time there was firm union and free passive movement, though active movement was still weak, presumably owing to the tenotomy of the tendo-Achillis. The notch caused by the separation of the divided ends of the tendon had almost completely disappeared.

BODY-SNATCHERS—AND AFTER.

A PLEA FOR ANATOMY.

PART I.

By ALEXANDER MACPHAIL, M.B., C.M., F.R.F.P.&S.G., Lecturer on Anatomy.

OULD any sensible man entrust the cure of his precious chronometer to the hands of a workman who had never before, even in his 'prentice days, probed beneath the face of a watch, or handled its delicate and complex mechanism?

Yet, for many centuries, our fellow-men were content to entrust the cure of their own much more precious interiors to the hands of medical men, whom they persistently debarred, by all the laws of Church and State, from gaining any but the most superficial knowledge of the infinitely more delicate and complex mechanism of the human body.

Indeed, antipathies die hard, and even in our own day there are men, otherwise sensible, who question still the righteousness of the study of human anatomy, and who do all within their power to hamper its progress. It is partly to show that the claims of human anatomy must for ever be heard, and its need served, that certain dark pages in its history are here re-written.

Now the watchmaker and the medical man have this in common, that they are called on daily to deal with patients, inorganic and organic respectively, whose disorders are often but little apparent on the surface, and whose only hope of cure demands an accurate and first-hand knowledge of all their inmost parts. But there is a great difference between them when we come to consider their training : the watchdoctors have always enjoyed the fullest liberty to learn their job; from their earliest 'prentice years they have free access to the whole intricate anatomy of their inanimate patients. The man-doctors, on the other hand, have had to glean the vastly more important knowledge of the enormously more intricate anatomy of their patients very gradually, often surreptitiously, through many centuries when the slow progress of the science was hampered, ever and anon, by restraints begotten of superstition and unthinking prejudice.

Even in this our own enlightened day their opportunities of becoming familiar with its fundamental facts are limited to some few months in their 'prentice years. Think of it ! while the doctor of to-day can trace his long and noble pedigree straight back, through nearly twenty-four centuries, to Hippocrates, the great father of us all, yet it is only some eighty years since the laws of this land recognised the need of any adequate provision for the medical student to acquire that first-hand knowledge of anatomy, which is indeed the only real foundation of the whole art and craft of medicine.

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What, then, took the place of the "subjects" which the statutes of all civilised countries now provide, more or less satisfactorily, for their medical schools? Apes and dogs and pigs, in the hands of Hippocrates, Aristotle and others, in the earliest centuries B.C.; an occasional criminal (and sometimes, 'tis said, a *living* one!) in the hands of the bold innovators of Alexandria, Herophilus and Erasistratus, in 250 B.C.; and apes and the like again, for the most part, in the hands of Galen in the second century A.D. Evidently Galen used these animals to some purpose, for his observations seem to have amply satisfied the non-progressive science which Medicine remained for many centuries thereafter.

It was not till the renaissance of learning in Italy that any great advance was made in the science of anatomy, but in the midst of that glorious age Vesalius, the Father of Modern Anatomy, risked his life—and lost it—in his zeal to utilise every opportunity of probing to their utmost the hidden secrets of the human frame. Up to this time, and, indeed, for some centuries afterwards, the only chance any zealous anatomist of our own country had of seeing the dissection of a human body was to journey abroad to some such school as the "far-fam'd Padua."

As late as the beginning of the eighteenth century the then Professor of Anatomy in the University of Edinburgh confessed to having seen the dissection of a human body only once in two or three years ! And yet the worthy men of the Town Council of Edinburgh deserve all credit for having been the pioneer authority in this country to make any provision at all for the teaching of anatomy. As early as 1505 they passed an Act granting the surgeons "the body of one malefactor" annually "to make an anatomie of"—with the cautious addendum, "efter he be deid"!

The latter end of the eighteenth century saw a great wave of anatomical and surgical enthusiasm sweep over this country from end to end, with great workers like Knox and Liston in the north and Hunter and Astley-Cooper in the south, towering on its crest. Students began to troop in hundreds to their rooms, clamouring to be taught, and yet the law of the land allowed them nothing more than such occasional bodies as the gallows of the country might provide.

Little wonder that so urgent a demand for bodies led, before long, to clandestine sources of supply! There soon appeared on the scene a Cinderella among the professions the new craft of body-snatching. We must do these men who practised it fair justice; in literature these knights of the shovel and sack are always heralded as "*professional* body-snatchers." We must do them this further and real justice, too, that, revolting to the best feelings as their doings undoubtedly were, they nevertheless played an invaluable part in that rapid progress of anatomical study which has proved of such lasting benefit to suffering humanity. The new army of professional "body-snatchers," "grabs,"

"resurrection men," or "sack-'em-up gentlemen," as they were variously called, grew rapidly in numbers, and could at one time be counted by the hundreds in the London district alone. Many hundreds more lay scattered in ominous groups at every centre of medical teaching in the British Isles; nor lacked they combination, for it needed but the signal of distress to fly on the battlements of Edinburgh for a heavy-laden coach to creep out of the heart of London at dusk on a long journey over the Great North Road; it needed but a cry for help to rise from the riverside University of Glasgow for a heavy-laden sloop to slip out of Dublin Harbour under cover of night, with her hull full of strangely silent passengers.

It was a dangerous game, but some who played it made much profit out of it, and not only lived happily ever after, but developed so great a pride in their "profession" as to nourish the fond hope that its badge, the grimy earthstained sack, might fall, like the mantle of Elijah, on to the shoulders of the sons of their loins; thus hoped Jerry Cruncher, sen., in the *Tale of Two Cities*:

"Father," said young Jerry, as they walked along, taking care to keep at arm's length and to have the stool well between them, "What's a resurrection man?"

Mr. Cruncher came to a stop on the pavement before he answered : "How should I know ?"

"I thought you knowed everything, Father," said the artless boy.

"'Hem ! Well !" returned Mr. Cruncher, going on again and lifting off his hat to give his spikes fair play—"he's a tradesman."

"What's his goods, Father?" asked the brisk young Jerry.

"His goods," said Mr. Cruncher, after turning it over in his mind, "is a branch of scientific goods."

"Persons' bodies, a'int it, Father?" asked the lively boy.

" I believe it's something o' that sort," said Mr. Cruncher.

"Oh, Father, I should so like to be a Resurrection Man when I'm grow'd up!"

Mr. Cruncher was soothed, but shook his head in a dubious and moral way. "It depen's upon how you develop your talents. Be careful to develop your talents and never to say no more than you can help to nobody, and there's no telling at the present time what you may not come to be fit for." As young Jerry, thus encouraged, went on a few yards in advance . . Mr. Cruncher added to himself: "Jerry, you honest Tradesman, there's hopes wot that boy will yet be a blessing to you and a recompense to you for his mother !"

Remaining with the body-snatcher for a little, as met with in fiction, we return grateful thanks to Dickens and Stevenson for the two notable tales in which the gruesome occupation and something of the domestic life and trials of these men are so faithfully described. The nocturnal trade of Jerry Cruncher, with his poor shame-faced praying wife and loyal little blackguard of a son, is used with immortal skill to unravel the plot of the *Tale of Two Cities*; the description of his midnight journey to the distant cemetery of St. Pancras, and his mysterious operations there, show how keenly the imagination of Dickens had been fired by what he had read or heard of the doings of the "resurrection-men." Stevenson's tale of the "Body-Snatcher" is also full of circumstantial detail, telling of a raid on the lonely graveyard of a country village near Edinburgh, and in this case, as will appear later, the fertile brain of that Prince of story-tellers had evidently been stimulated by the gruesome facts of an actual recorded occurrence.

Poets, too, have tuned their lyre to sing the grave doings of these men; but the verse is for the most part poor, and the moralising feeble. The immortal Tom Hood, however, did not let them escape the shafts of his merry punning wit:

> "'Twas in the middle of the night To sleep young William tried; When Mary's ghost came stealing in And stood at his bedside.

- "Oh, William, dear! Oh, William, dear! My rest eternal ceases; Alas! my everlasting *peace* Is broken into pieces.
- " I thought the last of all my cares Would end with my last minute, But when I went to my last home I didn't stay long *in it*.
- " The body-snatchers, they have come And made a snatch at me.
- It's very hard them kind of men Won't let a *body* be.
- "You thought that I was buried deep Quite decent like and chary;
- But from her grave in Mary-bone They've come and *bon'd* your Mary!
- " The arm that us'd to take your arm Is took to Dr. Vyse,
- And both my *legs* are gone to *walk The Hospital* at Guys.

" I vow'd that you should have my hand, But Fate gave no denial;

You'll find it there at Dr. Bell's In spirits and a phial.

" As for my feet—my little feet You used to call so pretty—

There's one, I know, in Bedford Row,— The other's in the *City*.

- " I can't tell where my head is gone, But Dr. Carpue can; As for my trunk, it's all pack'd up
- To go by Pickford's van.

" I wish you'd go to Mr. P. And save me such a ride; I don't half like the outside *place* They've took for my inside. "The cock it crows—I must be gone; My William, we must part; But I'll be your's in death, altho' Sir Astley has my heart.

"Don't go to weep upon my grave And think that there I be: They haven't left an atom there Of my anatomie." *

This international guild of ghoulish workmen was composed for the most part, as can well be imagined, by disreputable or lazy characters who had failed to secure a decent livelihood in any honest trade; but in so large a battalion of workers there were sure to be many, drawn from higher grades of Society, who were ever ready to take a sporting chance of increasing their income "out of office hours," as in the case of our friend, Mr. Jerry Cruncher, the bank-porter, and others, too, who followed the trade mostly on account of the exciting adventures it offered. All, no doubt, were attracted most of all by the high pay, for sums varying from four guineas (the usual charge for a body) to the huge figure of £500 (known to have been paid by John Hunter for the body of Murphy, the Irish Giant), were far beyond the wages to be earned in any ordinary employment.

Most of them have gone their way unrecorded and unknown, *ignoti longa nocte, carent quia vate sacro*—or, in other words, lacking the company of a recording Boswell—but much of the actual *personnel* of two groups of them has been preserved for us by cultured men who knew them well. The one, a motley Edinburgh band, is fully described by Leighton in the *Court of Cacus*; the other, a notorious London gang, absorbs a whole chapter of Bransby Cooper's voluminous Life of his distinguished uncle, Sir Astley Cooper.

The Edinburgh group, strange as it may appear, were fond of a joke and took their gruesome trade light-heartedly enough. The very nick-names given to them by the students betokened their willingness to work away in spite of goodnatured chaff. Their leader was called "Merry-Andrew," and the others were named—more appropriately—" Spune," which means a spoon of sorts, "Moudiewart," which means grave-mould, and "Screw"—so dextrous was this last in the art of raising bodies. Many good stories are told, in that somewhat rare book, of these men.

The London group is unfortunately unredeemed by any gleam of humour. A very exact record of their mode of life and work is preserved in the remarkable diary written by one of their number, which was presented to the Library of the Royal College of Surgeons by Sir Thomas Longmore, and since published in book form, with much interesting comment, by Mr. James Blake Batley, Librarian of the College. Some of these were men of good education and of considerable ability, but it is very evident that dissolute

* " Mary's Ghost," in Hood's Whims and Oddities.

habits had brought them low, and all through the pages of the *Diary* runs the almost daily entry that one or another or all of the party got drunk, or, as he somewhat naïvely spells it, "intoxsicated." It was all the same whether they had fared well or ill, as the following entries show: "*Monday*, 27th: At 2 in the morning got up; got 4, took them to Bartholomew's. Tom and Bill got drunk." "*Wednesday*, 11th: Went to the Big Gates to look out; at night the party went to the above place and again miss'd; all got drunk." "*Monday* 24th: Bill, Jack and Tom and Ben with Nat Ure getting drunk, oblige to come home in a coach."

It is therefore not surprising that, when they roamed abroad in the dark early hours of the morning, they occasionally proved to be "off their game," as witness such entries as: "Could not get horse out of stable"; "Jack all most buried"; "Butler horse and cart taken"; "Coming back with ladder Bill got taken unto the Watch House." We read, however, that the unlucky Bill got clear all right the next day, and by night was once again down on the old trail by St. Bartholomew's Churchyard.

However, in their sober intervals they would appear to have been not without compensations for the trying nature of their work; in one entry the party figures as having foresworn the nightly prowl for the pleasures of the Dance, and visits to the Play or to the Fight are recorded several times.

There were frequent quarrels among them, mostly on the score of the division of profits, and the harmony of this particular band would be disturbed for a time by its fission into several jealously competing cliques, plotting to spoil each other's pitch—sometimes by stealing, sometimes by so mutilating the harvest of the night as to render the bodies useless for the schools, and even, at the worst, by turning informers and actually landing their erstwhile colleagues in the hands of the police.

The "terms" of the "profession" were strictly "cash on delivery " plus two substantial payments in the way of a retaining fee-one at the beginning and one at the end of the School terms. In one page of the Diary it is recorded that "goods" to the number of "15 large and 1 small" were secured in St. Pancras Cemetery in one night, and two more the next day, and all taken to St. Bartholomew's. Surely the demonstrators of operative surgery must have gone about wearing a less anxious look in these golden days! Ben Crouch, the leader of the gang, declared, in his evidence before the Committee of the House of Commons, that he had handled as many as twenty-four bodies in four nights. Another of the gang, having by an ingenious ruse gained entry into the vaults of a chapel, in one night secured a haul of teeth for which alone he was paid the sum of £,60.

There is little wonder that drink ran free and that quarrels were rife among this evil camaraderie, or even that, in spite of large sums so easily earned, we find the diarist, at the end of a blank night, thus cursing their ill-

luck—" which was a very bad thing for us, for we wanted some money to pay our debts to several persons who were importunate."

On the other hand, it is all the more extraordinary to find two of the gang coming through the sea of dissolution pictured in the *Diary* with something laid aside for the proverbial rainy day: Ben Crouch, their leader, with the money he had made built a large hotel at Margate, and another of them, Jack Harnett, at his death left nearly $\pounds 6000$ to his family !

The writer of the *Diary*, Naples, the son of a respectable stationer and bookbinder, who had himself seen active service on one of His Majesty's ships of war, shows great caution from beginning to end, never mentioning the word cemetery, corpse, body or hospital. The graveyard he calls the "*Crib*," the contents of the rifled coffins he calls either simply "I large" or "2 large and I small," as the case may be, sometimes with the letters "M" or "F" to designate the sex, and sometimes with a hint of rude diagnostic power, such as "I Large Yellow Jaundice"; more succinctly still the body is sometimes referred to as "*The Thing*," or simply as "It."

Though the word "Hospital" is never used in describing their destination, the oft-recurring names of Bartholomew, Guy's, St. Thomas's, leave no doubt on this point. It would appear, from the large number of bodies that are recorded as being taken to St. Bartholomew's, as well as by the frequent note of their removal thence next day to other schools, that somewhere within the precincts of this ancient institution some obscure but capacious out-house had been placed more or less officially at the disposal of these indispensable general providers, to be used by them as a professional clearing-house. The very last entry in the *Diary*, in fact, reads thus: "Saturday, 5th December, 1812: Remained at Bartholom^w all day packing up for Edinboro. Sent 12 to the Wharf for the above place."

Many famous names figure in the debit side in the rude invoices in which the *Diary* abounds—Charles Bell, Astley Cooper, John Taunton, Abernethy, Stanley, and Dr. Carpue.

This was no work for weaklings, and the body-snatchers as a rule were big, powerful men, capable of great physical endurance, and necessarily endowed with considerable pluck and daring. Merrylees, the leader of the Edinburgh gang, is described as "a man of gigantic height," and Ben Crouch, the most noted of the London group, as "a tall, powerful, athletic man (with coarse features, marked with the small pox), and well known as a prize-fighter." Their work had always to be done in the early hours of the morning, often at great speed and often under the most disagreeable conditions of weather and surroundings. They required much sharpness of wit to avoid detection and untimely interference at the hands of the alarmed friends of the dead or from the arm of the law; but in this last regard there can be no doubt that "The Law" was somewhat given to winking at a practice which its pillars fully realised was not wholly bad, if not actually wholly *good*, in light of its ultimate application. There seems no doubt that the arm of the Law could have stifled this profession in its infancy, or, at any rate, could have suppressed its sturdy adolescence, had it been inclined to rigorously police the happy hunting-grounds of the "sack-'em-up gentlemen."

These men had also to face and overcome the natural repugnance and the common superstition with which the bodies of the dead used to be regarded. Many amusing tales are told of the trying ordeals they sometimes had to go through, trials through the discovery of demented relatives mourning by the grave, trials by the sudden tread of four-footed intruders nosing their quiet way in search of fresh pasture between the tomb-stones, trials through the sudden flash of lightning and crack of thunder, and trials of many a more innocent origin, all calculated to strike terror to the already over-strung nerves of the novice.

In the *Diary of a Late Physician* Warren gives a graphic description of a raid on a country churchyard with the object of securing a pathological specimen of unique interest, in which the enterprising doctors engaged the services of a noted body-snatcher, and saw their dangerous expedition nearly wrecked through a few natural but unlooked-for incidents working up the brain of this highly superstitious expert into a state of panic.

Many stories are told of expeditions nipped in the bud or foiled on the eve of fruition through the superstitious fears of the participants. One concerns two body snatchers who, caught in a rain-storm when driving back with their prize to a city in the north, sought the shelter of a roadside inn. Leaving the body safe, as they thought, in the sack in the bottom of the cart in the stable-yard, they regaled themselves in the warm parlour. They lingered long enough to give some loafers in the yard time to whet their curiosity as to the contents of the cart. There was no uproar when those stood revealed, for the nature of the business was only too well known, and these honest hostlers and their friends took no steps to interfere with the probable destination of the corpse, till a bright idea struck one of the crowd who was due that night to tramp the long weary miles back to the city; inducing the others to help him to take the quiet occupant out of the sack in he got himself, and was more or less comfortably fixed up by his confederates; in due course the body-snatchers emerged from the inn and drove briskly off, with the precious burden propped up between them on the seat of the cart. But all did not go well. Both men, without saying anything for a while, were beginning to feel uneasy, till, finally, one could keep silence no longer. "Man, Sandy," said he, "it's a queer thing the corpse feels warm, and is like to be getting warmer a' the time." Forthwith came a sepulchral voice from the depths of the sack : "If you had been where I have been these seven nights past you would be getting warm too !" The

terrified tradesmen waited to hear no more; leaping from the cart in horror they left the well-satisfied "corpse" to direct the horse at his own sweet will to the particular roadend where he wished to alight !

On another somewhat similar story, also from the North, R. L. Stevenson no doubt based his tale of "The Body-Snatcher." The wife of a farmer in a small village near Edinburgh died and was decently buried in a lonely little kirk-yard on the moor. Some days afterwards, on going to visit the grave, he was horrified to find the body of his wife lying by the roadside, covered only by her dishevelled shroud. His suspicions that this had been the work of body-snatchers were quite right, but he probably never knew the real story of how she came to be there, though in the course of time it became widely current among the students. The burial in the lonely graveyard had not escaped the Intelligence Department of the Medical School-be sure they kept a sharp eye on all such doings in these days !--- and three students set out by themselves in a gig one dark night on an adventure of body-snatching. They drove up as near to the grave as they might and then stole cautiously towards it on foot. They were amateurs at the work, but success attended their efforts till they found that the necessary sack had been left behind in the gig. As dawn was beginning to break, one of them volunteered to hasten their return by hoisting the body on to his back by means of the shroud, and all hurried back to the gig. The burden-bearer, lagging last and clinging firmly to the shroud, had, however, a less secure hold of the corpse than he thought; for, gradually slipping downwards through the shroud, the feet of the poor woman at length reached the ground and rebounded thence a time or two in step with the hurrying feet of the bearer. The sudden conviction of life at his heels fired his strained nerves to frenzy, and "uttering a roar," says the chronicler, he threw his burden off and crying to his friends "By G-, she's alive," rushed for the gig, jumped in with his companions, and all drove off in terror. There seems little doubt that this story, given as authentic in Leighton's Court of Cacus, gave origin in Stevenson's fertile brain to the still more weird conclusion of his well-known tale.

"Cherchez la femme" is an oft-quoted aphorism in history, and a passing reference may be made to the part played by women in the story of the body-snatchers. To the credit of the sex it has to be said that no record is to be found of women at any time plying this trade independently of men. But there is, unfortunately, no doubt that the wives of Burke and Hare, who, coming later in history, were the direct successors of the body-snatchers, were actually the willing accomplices of these villains in the dreadful murders which they committed in Edinburgh. Nor is there any doubt that the wives of the regular bodysnatchers were, for the most part, quite aware of the loathsome trade of their spouses. In London, at any rate,

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where the clay soil, accumulating on boots and clothes, made these unfit to be seen by day, the devoted wife must sooner or later have been let into the secret. It may be remembered that Jerry Cruncher's clay-soiled boots are among the "properties" faithfully adhered to by Charles Dickens. The women, however, were not all so ashamed of their man's trade as was Mrs. Cruncher ; on the contrary, they sallied forth and gave a helping hand in it. Clad in deep mourning they would scout the graveyards, marking the position of the spring-guns and such-like precautions devised by alarmed relatives to foil the nightly depredations. Similarly clad, they would sneak to the bedsides of the dying in the workhouses, professing kinship and claiming the corpse. In his confession, Bishop, one of the bodysnatchers who turned murderer, describes the part played by the wife of Williams, who was his accomplice in three dreadful crimes. After describing how they packed the body of their victim into a trunk, he says : "I told Shields (a porter) he was to carry that trunk to St. Thomas's Hospital. He asked if there was a woman in the house who could walk alongside of him so that people might not take any notice. Williams called his wife up and asked her to walk with Shields and to carry the hat-box we gave her to carry. There was nothing in it, but it was tied up as if there were. We then put the box with the body on Shields' head, and went to the hospital, Shields and Mrs. Williams walking on one side of the street and I and Williams on the other." What a gruesome procession was this for the wayfarers of the Strand to feast their curiosity on, had they suspected the nature of the contents of the box moving slowly onwards through the crowded street.

In my student days in Glasgow we used to remark that if ever there was a street row of anything more than normal dimensions timid folk on the fringe of the crowd could always be heard to say, "Oh! it is the students!" with an inflection in the tone of voice which manifestly implied the corollary, "May the Lord help us!" I suppose there was this germ of truth at the bottom of the remark that it *is* really part of the student's temperament when there is a row going on anywhere to join in it if at all possible.

Surely the medical students of the period now under review might be relied on to join fervently in a fray wherein success meant so much to their teachers and themselves. Here was a ploy calling for considerable physical strength and offering great scope for the genius of artful dodging well calculated to give full vent to the pent-up energy and strategy which spend themselves, in modern times, in the Hospital Cup-Ties ! Little wonder, then, if the older representatives of the species must bear the soft impeachment that they, too, were often to be found swelling the ranks of the body-snatchers ! Though never in actual league with any of the gangs of "professionals," they learned their methods, and soon became apt undergraduates of the craft. Probably the palm in this regard must be awarded to Liston, the famous surgeon, who, in his student days in Edinburgh, performed prodigious feats of daring and strength in pursuit of this calling. The City Watch discovered him one night, with a party of medicals, busy at work. The watch were armed with guns, and did not stint to use them, but Liston, nothing daunted, laid hold of two large adults, that moment disinterred, and carrying one under each arm made good his escape.

Lonsdale, who records this and several other heroic incidents in his *Life of Robert Knox*, pays this tribute to Liston as a body-snatcher: "He was a Napier in action, bold, dexterous, aye ready and in the van of danger, and single-handed equal to any three of the regular staff of workmen."

That his contemporaries "across the water" did not lag behind in daring is shown in the evidence given before the Committee of the House of Commons by Professor Macarteney, of Trinity College, Dublin, wherein he stated that "the resurrection men go provided with firearms, and are frequently accompanied by several students armed in the same manner."

The dangers involved might well be counted on to make the work attractive to the students, but these sometimes led to tragic results. MacGregor, in his History of Burke and Hare, and of the Resurrectionist Times, records such in the case of a raid on a Glasgow churchyard. Three students arriving there in search of a body found the graveyard plentifully sprinkled with trapguns, and had not gone far before one of their number, stumbling over a gun, was instantly killed. When his companions saw that he was dead they were horrified, but the fear of discovery led them to adopt an extraordinary method of taking away the body of their unfortunate friend. They placed the dead man on his feet, propping his body against the cemetery wall, while each tied a leg to one of theirs, and, taking the corpse by the arms, passed slowly along the dimly lit street to their lodgings, shouting and singing as if they were three roysterers returning from a carouse !

With regard to the part played by the London students, Bransby Cooper states, "The hospital students would occasionally join the depredators in their nightly exploits. They were, however, most frequently kept apart from the more important operations, being employed either in looking out or some subordinate occupation, never, so far as I know, being allowed to engage themselves actively in the proceedings at the grave."

One can well imagine some hefty "forward" of a hundred years ago "turn in his grave" at this impeachment of his "activity," questioning its veracity by some more or less classical ejaculation! It certainly will not appear likely to anyone knowing the breed, that, with such sporting adventures afield, with lanthorns, trap guns, blunderbusses, pistols in the air, the Hospital student of that time always played so subordinate a part as Mr. Bransby Cooper would have one believe! In support of this doubt, one need only look across the narrow street which separates the Abernethian Room of St. Bartholomew's Hospital from the grave-yard of St. Sepulchre's and contemplate the imposing Watch Tower there : the solid architecture and commodious apartments of the Tower (erected in 1791) certainly suggest that their nearest neighbours at any rate did not repose the same simple trust in the young Abernethians of that far-off day !

One group more completes the ranks of this medley army, namely, the sextons and keepers of grave-yards and vaults. These, if not actively in league with the bodysnatchers, were often easily "squared," either at once by the offer of drink or by the promise of a share in the profits. Quickly and quietly as the body-snatchers worked, it is impossible to imagine them successfully removing such large numbers of bodies as are recorded, in one night, without the security and protection gained by the connivance of these officials. Indeed, it is well known that some of the most noted Resurrectionists graduated as respectable sextons and watchmen.

Now as to the methods employed: these no doubt varied in different parts of the country, but none have been so minutely described as those of the most notorious of the London gangs, partly in the *Diary* already referred to and partly by some of their employers, to whom, when the game was up, they afterwards made full confession.

First came the systematic vigil by cemetery gates, day by day, in little groups of two or three; the "look-out" they called it; sometimes an isolated member of the gang would fall in with a funeral and cautiously stalk it to its lair. "Thursday 22nd," enters one succinct diarist, "followed a black from Tower Hill, came home and met at White Horse : the party, except Butler, went to Lambeth." Sometimes the Resurrectionists were saved these preliminary anxieties by being sent by their well-informed employers to some distant town, frequently more than a hundred miles away, to secure some specially desirable prize-some unique pathological or post-operative subject of whose death they had been advised. Bills which have been preserved by Sir Astley Cooper's biographer show that on such occasions the minions "did themselves well," charging \pounds_3 125. for "Coach for two there and back," 6s. for "tips to Guards and Coachmen," and \pounds_1 14s. for "Expenses," in addition to their professional fee. But the "other side of the shilling" is shown in another of Sir Astley's bills-"Paid Mr. half the expenses for bailing Vaughan from Yarmouth \pounds_{41} 7s. Paid Vaughan's wife 6s., ditto, Vaughan for twenty-six weeks' confinement at 10s. per week, £13." Poor Vaughan had evidently lagged behind and been made to suffer for the sins of the rest of the party, but it would be some additional compensation to him when he was duly returned to the bosom of his family and to the counting-

house of his confederates, to draw his overdue share of the $\pounds 57$ 14s. which Sir Astley had had to pay the three villains who got away safely with the subjects. The four subjects thus secured accordingly cost that distinguished anatomist the good round sum of $\pounds 86$!

The hour selected by these grim birds of prey for their ghoulish enterprise varied, of course, with the time of year and their carefully fore-gained knowledge of the times and phases of the moon as well as of the times and habits of the police and watchers; hours ranging from 11 p.m. to 3 a.m. are mentioned in the *Diary*.

So, too, the *impedimenta* of the expedition varied with the extent of the harvest they anticipated. For two or three "large" and "small" a corresponding number of large, coarse canvas sacks were sufficient, and in addition to shovels, a hefty crowbar and ropes. Bradawls were usually included in the outfit, too, to extract, possibly, a marketable quantity of teeth from subjects whose condition was otherwise too disappointing for words! The body-snatchers were known, as has been seen, to be strong, powerful men, and by these simple means were able to get their prizes quickly removed to a place of safety.

But when a larger "haul" was in the wind, or when a greater distance had to be travelled than a man could carry the laden sack on his back or head, a light cart and horse were added to the sinister procession.

Arrived at the grave-side, their mode of proceeding to work varied, of course, with the nature of the soil and the interval that had elapsed since the burial of their quarry. If the grave was recent and their aim to secure a single subject, they quickly dug a narrow shaft, wide and deep enough to give one of their number easy access to the exposed end of the coffin; breaking open the lid, the "man down below" then inserted the crowbar and levered up the whole lid with its superincumbent weight of undisturbed soil, freed the body from the shroud, slipped a rope round the neck or armpits and gave the word to "haul away."

Scrupulous care was usually taken to leave the shroud in the emptied coffin, and this was accounted for by the curious fact that, while, in the eye of the law, the procuring of the body was simply a *misdemeanour* and therefore punishable only by lighter terms of imprisonment, the removal of a single shred of the shroud, on the other hand, constituted a theft of property, which, if proved against them, laid them open to the much heavier scale of punishment awarded for a *felony*.

The really ingenious *praxis* thus devised by them was a great saving of time both in digging out and in filling in, and made it an easy matter to leave the surface of the grave showing little or no trace of the speedy resurrection that had been carried out. The entire proceedings, in the hands of an expert and under favourable conditions, were said to have occupied less than a quarter of an hour. But where the earth over the coffin was more solid, or where several

coffins had been buried in one grave (as was often done in the case of pauper burials) there was often nothing for it but to dig the whole coffin clear. In such cases, too, they were credited, especially when dealing with gravelly soil, with a special way of working their spades so as to throw the earth out of the grave with a minimum of noise.

Simple as these operations may seem they required considerable practice as well as the resolute preliminary victory over all the natural feelings of revulsion and superstition.

Gradually these methods became so well known as to lead to equally ingenious counter-moves on the part of the *anti*-body-snatchers, who, not content with keeping up for hours a weary watch in the wet and cold, blunderbuss in hand, by the fresh graveside, or, not content with the greater comfort and snug fireside gained by building substantial watch-towers on cemetery-walls, with spring-guns spread among the graves to keep them on the alert to any goings-on outside, sought by various other means to foil their foes of the prey.

Thus, on the freshly made grave odd articles, such as flowers or oyster-shells, would be placed, apparently haphazard but really in carefully noted positions.

But the body-snatchers again would check each move in turn.

If they found their "pitch" populous with watchers, they were content to outweary them, hanging around in the dark, biding their time like vultures watching for the last sign of life to depart. If blunderbusses were anticipated, powder and shot could be met with powder and shot; and many exciting tales are told of resounding "general engagements" of this kind.

They learned to send their wives, clad in deep mourning, to the graveyards at dusk, just as the gates were closing, to draw the teeth of the dangerous trap-guns; they themselves became wise to note the exact position of all extraneous objects and to replace them carefully exactly where they had been deposited.

Driven to desperation by the persistent way in which these minor obstructions were overcome, recourse was at length taken in many cases to more really effective precautions. In the Greyfriars churchyard at Edinburgh grim reminders of these days of panic are still to be seen in the shape of huge cages of strong iron bars mortised securely in the stonework of deep-set graves, and in Mr. Bailey's interesting introduction to the *Diary of a Resurrectionist* there is figured a much-advertised patent wrought-iron coffin, with strong iron clamps fit to withstand the leverage of the most powerful crowbar, the whole so nicely calculated as to strike despair in the heart of the most virile body-snatcher the imagination could picture.

Nevertheless, precautions such as these did little to abate the zeal or diminish the ever-increasing profits of this enterprising "tradesman in scientific goods."

One event, however-and one alone in this stage of his

history—was every now and then lying ready to strike dismay in his heart; an event more potent than any of theinventions of man, and that the natural process of decay, which so often foiled his labours just when he hoped they had reached their fruition. There was nothing left for him then but to pack up and get back to bed for the few remaining hours of the night; on one occasion he is known to have satiated his disappointment by the following brief entry in his oft-quoted *Diary*: "Friday 7th Feb. 1812. Met together me and Butler went to Newington. *The Thing Bad*"!

CLINICAL JOTTINGS.

No. XXII.

By SAMUEL WEST, M.D.

LOSS OF WEIGHT IN VISCERAL CANCER.

HE loss of weight in visceral cancer is sometimes astoundingly rapid. Thus I have seen a man of about 12 stone with cancer of the liver lose half his weight in three months, at the rate, that is, of nearly one pound a day. Such rapid emaciation as this is very rare.

Appearances may be deceptive. Thus I remember a woman with cancer of the spleen who was enormously fat for her height and weighed 16 stone at the time of her death. Yet she had lost 4 stone in as many months.

Loss of weight more or less rapid is, of course, characteristic of cancer, yet patients who are ultimately proved to have visceral cancer by post-mortem examination may retain their weight unaltered for months together, or even after having lost weight may, when carefully nursed, regain much that has been lost. This latter is most frequently seen in cancer of the stomach, where, from want of proper assimilation of food, the emaciation of starvation is added to that incidental to the disease. Careful feeding and treatment may remove the former, and so the nutrition is improved and weight increased.

MOUTH TOILETTE IN SEVERE ILLNESS AS A MEANS OF PREVENTING MANY COMPLICATIONS.

Many of the complications of severe disease are preventable. This is obvious if we consider that they are comparatively rare in hospitals, where the nursing is good, and only common where the conditions are unsatisfactory.

Bed-sores, for example, were not at all uncommon years ago when nursing was less understood. In case of nervous disease, under the then dominant theory of trophic lesions, they were regarded as the almost natural consequence of the lowered vitality of the tissues and as almost unpreventable and incurable. Their frequent occurrence was often quoted as proof of the existence of trophic nerves a splendid example of arguing in a circle.

Not only were bed-sores common then, but patients not infrequently died of them.

Now, with proper nursing, bed-sores are hardly ever seen, and if patients are admitted into hospital with them they are readily cured.

The constant attention to prevent and cure them in some cases of course makes heavy demands upon the nurse; but if bed-sores develop it is generally due to want of care. The nurse should be held responsible and blamed as she deserves.

Cystitis is another case in point. This also was once regarded as more or less unavoidable, but we now know that it is generally the result of either neglect of catheterisation or of the ordinary antiseptic precautions.

The group of complications, however, to which I wish specially to refer is that which is the result of want of proper care of the mouth, for this connection is not so generally recognised.

In many cases of grave illness, especially if associated with fever, the tongue is heavily coated. Most of these patients lie on the back and breathe through the mouth, with the result that the mouth and tongue become dry and caked.

The air inspired brings with it germs of many kinds which grow readily under the conditions present.

The fur consists of inspissated epithelium, mucus and saliva, mixed with remains of food, and teems with bacteria. The breath becomes very foul and offensive from the putrefactive decomposition which takes place, so that the condition well deserves the name given to it of sordes or filth.

Sordes has been described as if almost a necessary part of severe fever, yet it is accidental, not essential, and can and ought to be largely prevented and cured by appropriate treatment.

If the air inspired passes over such foul surfaces what more likely than that it should carry infection to the lungs, and set up inflammation there—pneumonia as it is commonly called, though the infecting germ need not be the pneumococcus only. This is especially liable to occur in children where the inflammation is of the patchy multiple bronchopneumonic type.

Some of the foul products will be swallowed, and may then set up infective irritation, and thus impair appetite, cause vomiting, or excite various troubles both in the stomach and intestines, while the absorption of putrefaction products from the mouth and pharynx as well as from the gastro-intestinal tract may produce toxic symptoms and greatly aggravate the patient's general condition.

Again the infection may spread directly to the various passages which are in connection with the mouth and pharynx. The commonest Eustachian inflammation with otitis media as its consequence is most likely to occur where the pharynx is gravely involved as in scarlet fever and diphtheria, but it is frequent enough in all fevers alike both in children and adults.

The posterior nares may be involved, and from thence the lachrymal duct, or the infection may extend upwards through the cribriform plate to the meninges, and excite acute meningitis, the origin of which it is sometimes so difficult to account for.

If the parotid duct be involved, swelling or even abscess of the parotid gland may result.

The curious association of parotid affections with diseases and operations of the abdomen is probably explained by the fact that in such cases the patients lie on the back, breathe through the mouth, have a very restricted diet and nothing to masticate, so that the mouth is not kept moist and cleansed by the saliva and movements of mastication. When patients are well enough to notice it, much discomfort is produced by this dryness of the mouth, which is not relieved by the mere drinking of water. A dry powdery biscuit given to munch once or twice a day is a great enjoyment, and goes far to remove this complaint.

All these complications may be referred to the condition of the mouth, and can all be easily and largely prevented by systematic mouth toilette.

The mouth should be treated as it is in babies, washed out with a piece of rag or flannel after every feed, or, at any rate, three or four times a day, to get rid of the remains of milk or food, and afterwards rubbed all over with an antiseptic mouth-wash, containing, for instance, glycerine and borax or chlorate of potash.

Simple precautions such as these—that is, mouth cleanliness and disinfection—will go far to obviate many of the complications referred to. In cases of severe illness it is as important to look carefully to the mouth as it is to the back or the bladder.

OBITUARY.

R. E. S. WADDINGTON, M.R.C.S., L.R.C.P. Entered Hospital, October, 1905. Left, January, 1914. Died, February 26th, 1914.

THE news of Waddington's sudden death came as a great shock to his many friends at the Hospital, where he was so well known and liked. He had been especially prominent in games at the Hospital, having been in the Rugby Football Cup Tie team in 1911, Secretary and Captain of the second Rugby fifteen, and Secretary of the Boxing Club. At the time of his death he was acting as Assistant Medical Officer of Health for the Willesden District. We wish to express our sincere sympathy with his relations in their great loss.

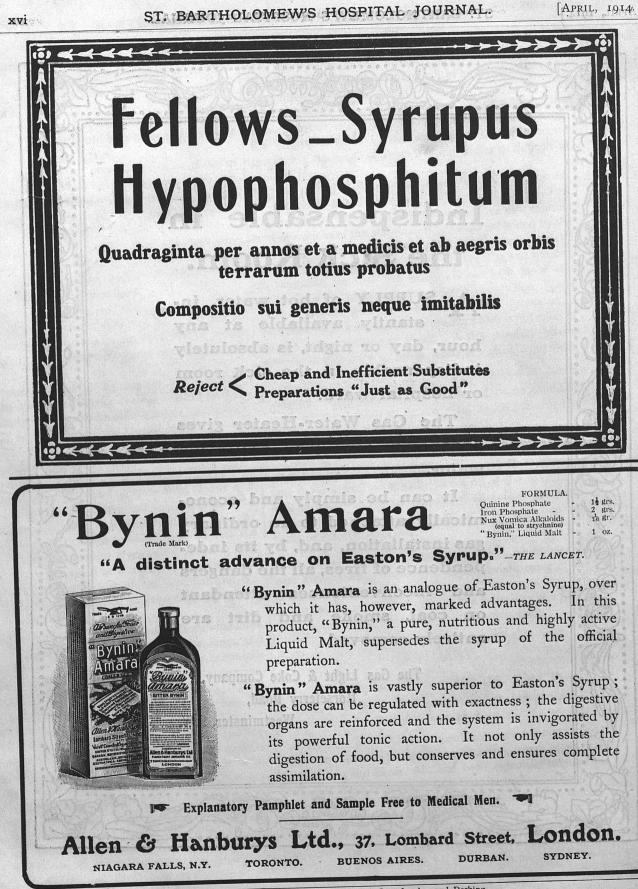
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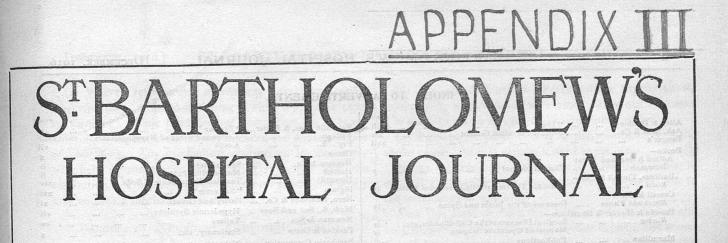
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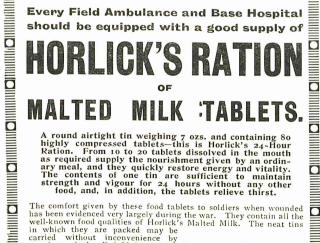
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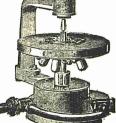
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DANGERS OF A PUNGENT ANÆSTHETIC VAPOUR.

Chloroform vapour is usually, but wrongly, thought to be much blander than ether vapour.

This is chiefly due to its being used in such low concentration as compared to ether. Ether will not redden or blister the skin, but chloroform will. In an equal concentration chloroform vapour is far more of an irritant than ether vapour.

It has three atoms of chlorine united to its anæsthetic or hydro-carbon radical, and this chlorine causes it to be an irritant.

It is very apt to irritate the respiratory mucous surfaces, which respond by secreting an extremely thick glutinous mucus far more slimy and tenacious than the secretion which you get with ether. No doubt this is a protective effort on the part of the mucous membrane.

This secretion takes place very insidiously; it is not forced upon one's notice as is the ether secretion. There are two reasons for this:

(1) The extremely slimy glutinous nature of the chloroform-secretion.

(2) The gentler character of chloroform-respiration as compared to ether-respiration.

Ether, fairly light, volatile, quickly absorbed, acts as a respiratory whip. The heavy breathing of ether churning up the more fluid ether secretion makes it bubble and rattle very noticeably in the airway.

Chloroform : Relatively inert. May, as we have already seen, greatly hamper respiration and can never be compared to ether as a respiratory whip.

Thus the quieter breathing associated with chloroform fails to displace or churn up the more sticky chloroformsecretion.

What happens? No bubblings nor rattlings in the airway warn the anæsthetist of approaching danger. He fails to notice the very gradual and insidious weakening of respiratory movements—the very gradual and insidious onset of cyanosis.

When he does notice it the crisis is probably in its later stages. Even now that he sees something is seriously wrong he does not realise *exactly what is wrong*.

Breathing has been brought to a standstill by the combined action of two or more causes :

(1) Mechanical obstruction to respiration by a sticky plug of mucinous chloroform-secretion in the airway.

(2) The physical action of chloroform which, as we have already seen, is liable to become dangerous whenever it is helped by a co-existing mechanical obstruction.

(3) Probably, in cases ending fatally, combined with the above causes, there is usually a third cause, viz. :

Reflex depression of circulation and respiration due to surgical stimulation of a sensory afferent nerve or due to the imminence of vomiting.

Now this state of crisis has been slowly produced, and only slowly can it be removed. It may happen, and sometimes does happen, that the heart will fail before this removal can be effected. The patient dies, and it is thought that chloroform has paralysed the heart muscle or respiratory centre.

In the examination now under consideration, at all events, such is not the case; the patient has really died of a most insidious and deceptive type of asphyxia.

The pungency of chloroform vapour tends to danger it in two other ways :

(1) A sudden unexpected intake of a too concentrated vapour may over-stimulate the sensory terminals of the vagi in the larynx, and reflexly stop the heart. Such a catastrophe would be especially likely to occur in panicstricken patients with nervous systems ablaze, with reflexes strung far above concert pitch and ready to act explosively on any provocation. Embley maintains, however, that the action of chloroform is on the vagal *centres*, in which it is borne by the blood-stream, rather than peripheral.

A too powerful vapour may cause spasm of the glottis-sometimes dangerously persistent.

Chloroform is liable to be impure through decomposition. Does this fact make for danger? Yes, it does. Impure chloroform is weaker anæsthetically than pure chloroform; you have, let is say, to use "A + B" of impure chloroform to get the effect produced by "A" of pure chloroform. Now the more (within limits) anæsthetic you drop on to your mask, the more do you substitute anæsthetic vapour for air in the atmosphere breathed.

When using weak chloroform you may have to give so much of it to attain anæsthesia that the patient is starved of air. Straightway the pulmonary arterioles begin to close. This denial of air to the lungs which an excess of anæsthetic vapour causes is called the *negative action* of that vapour. Weak chloroform, then, tends to unduly exaggerate the negative action of chloroform—tends to cause narrowing of the pulmonary arterioles. Narrowed pulmonary arterioles are a great danger in chloroform. Why so?

They are an obstacle to recovery from the various crises which may occur during the chloroform administration. Safety in such crises lies in being able to secure an efficient circulation of blood through the lungs. If, previous to the onset of crises, the pulmonary circulation is already hampered, it is obvious that the crisis becomes thereby more serious, and recovery will be delayed. To take one example : A sensory nerve is strongly stimulated—say in the region of the gall-bladder. Splanchnic vaso-dilatation occurs. The heart having no blood to contract on becomes automatically reduced in action. The blood, which has been displaced into the splanchnic area, to get back to the system must pass through the pulmonary circulation. It gets very little help on from the heart, since the heart is automatically reduced in action. The patient is placed head down on an incline, and the airway is kept normally patent so that air can get freely to the alveoli. Gravity drives the displaced blood on through portal system, etc., to the pulmonary artery. Finding the pulmonary arterioles open the blood passes on freely through the lungs to the left heart, and the heart thereupon quickly resumes the normal action.

Suppose, now, a pre-existing spasm of pulmonary arterioles. The blood on its way back to the left heart is stopped by this. You have a reduced heart trying to overcome an obstructed pulmonary circulation. It obviously cannot do it. Immediate artificial respiration and a patent airway become urgently necessary. Till the pulmonary alveoli become flooded with air the obstacle will not begin to yield, and even then it yields gradually. It is none too early to flood the lungs with air in such a case, because the airway is already filled with a dense inert chloroform vapour, and it takes time to get rid of this. It is obvious now how dangerous is spasm of the pulmonary arterioles during chloroform anæsthesia.

It may cause such delay that recovery becomes impossible. Now the anæsthetist is not clairvoyant; he cannot see the contractions of arterioles nor can he see the pulmonary artery, right ventricle, and auricle all distended by back pressure. When the back pressure has reached the right auricle it extends backward further into superior vena cava (chiefly) and inferior vena cava (to a less degree). Their tributaries begin to swell. And this swelling he can plainly see in the frontal and auricular veins ; such visible warning is valuable, but comes somewhat late in the vicious cycle of events just described. Nature is kind, and gives the anæsthetic a far timelier warning than venous distention, namely, discoloration of the arterial blood. The moment aeration becomes insufficient (however slight the degree of insufficiency) that very moment the arterial blood darkens, though the degree of colour change may be very slight where defective aeration is also slight. Nature has given the anæsthetic all he needs; the danger-closing of pulmonary arterioles-and the warning-discoloration of arterial blood-are practically synchronous.

It is clear, then, how *all-important* it is to watch closely the colour of the arterial blood, to train oneself to detect *the very slightest* changes in it. The ear is the best place, usually, in which to observe such colour changes. Let us now turn to

MAN—The Personal Equation—more especially Airway and Blood.

PRELIMINARY EXAMINATION.

Individuals differ very much in temperament and in bodily structure, and such differences have far-reaching effects upon the course of anæsthesia. To successfully give chloroform you must make first a swift but searching examination of each patient. You must be able to analyse correctly your findings, to estimate the probable danger or difficulty likely to be caused by any given variation from the normal. Having made a correct estimation you are in a position to devise modifications of the routine method—modifications designed to obviate the difficulties present in any individual case, designed to attain and maintain a safe smooth anæstingia.

Let us consider Airway and Blood, the two first and most intimate points of contact between chloroform and the human body.

Airway: We have already set forth the physical action of chloroform in the airway, hindering respiration, and we have asserted that any mechanical obstruction in the airway tends to exaggerate such physical action. We have spoken of the dangers of the glutinous chloroform secretion; it is obvious then that we must look carefully for any mechanical obstruction in the airway, e. g. nasal obstruction, large tongue, large tonsils, etc. We must look, indeed, for any signs of weakness or stiffness of respiratory movement, for any poverty of air entry. We must examine the respiratory machine as a whole, not only airway but motor power (muscles) and lungs.

(To be continued.)

THE AFTER-MATH OF BODY-SNATCHING : A PLEA FOR ANATOMY.*

By ALEXANDER MACPHAIL, M.B., C.M., F.R.F.P.& S.G. Lecturer on Anatomy.

HERE is no doubt that the highly organised though clandestine supply of "subjects" by the bodysnatchers resulted in a notable quickening in the pulse of scientific teaching in the medical schools of this country in the later years of the eighteenth and the beginning of the nineteenth centuries. This quickening led to a great increase in the number of medical students, and this

* Being the Mid-sessional Address to the Abernethian Society, delivered November 9th, 1916.

in turn to an ever-growing anxiety on the part of the anatomists as to ways and means. Their precarious supply at this period depended on three sources. First, the civil authorities were empowered, by an Act of Parliament passed in the reign of King George II, to hand over the bodies of criminals after execution to the Schools. This was not only a meagre source of supply, but it also served to bring the practice of dissection into disrepute through its associa-

tion with the ugly crimes and angry mobs that formed its

necessary prelude. Another source, still more meagre, but of more than passing interest, was the voluntary deposition of their own bodies by enlightened people who left instructions in their wills, with more or less eloquence, directing their mortal remains to be devoted to the advancement of the healing art in this way. They form a small but noble company, and we are bound to salute their zeal with reverence. Even the laconic directions recorded of one of these testators, a certain Mr. Boys, is worthy of respect in spite of its rather odd ending. He addresses his executor thus : "It may be irksome to you to superintend the business, but perhaps you have knowledge of some rising genius or geniuses who may be glad of a subject without paying for it. Let them slash and cut and divide as best may please 'em."* Very different were the stately terms of the Will of the famous philosopher and politician, Jeremy Bentham, who, when a young undergraduate at Oxford, felt so impressed with the opposition offered to a science which he regarded as indispensable for the advancement of knowledge, that he there made a will devoting his body to the public good; though Bentham lived to be 85, he once again, only two months before his death, full of years and honour, bequeathed his body for that purpose, thinking it unjust that the humbler classes should alone be called on to sacrifice those feelings which are cherished alike by rich and poor. It is very significant that the framing of this codicil by the mature philosopher in 1832 coincided with the very climax of the troubles experienced in getting the teaching of anatomy placed on a satisfactory footing in this country. † Bentham's skeleton is preserved to this day in the Museum of University College, and one wonders if it may have been the force of his example that formed the inspiration of the bequest recently published ‡ as having been made by another who added so much to the fame of that college and who died so nobly for his country -the late Sir Victor Horsley. Another heroic soul touched by this feeling of duty was Florence Nightingale, who similarly directed by her Will that her body should be devoted to the purposes of medical science. All that was mortal of Sir Victor Horsley had been laid to rest in the sands of Mesopotamia ere the terms of his Will could be made known, and by the time of Florence Nightingale's

death the difficulties she sought to alleviate had passed away; yet these examples and many others that might be quoted go to show that choice spirits have felt, in past times as well as in our own, that a feeling of reverence for the dead need imply no repugnance to the dissection of the human body.

It is on record that at the time when the evils of bodysnatching were at their height, ninety-nine gentlemen of Dublin signed a document in which the wish was expressed that their bodies instead of being interred "should be devoted to the more rational, benevolent, and honourable purpose of explaining the structure, functions, and diseases of the human being."* And later, when the opposition to the introduction of the Anatomy Act was at its height, " many of the highest in the land, amongst them the Duke of Sussex, youngest son of King George III and uncle of Queen Victoria, gave directions that after death their bodies, if required, should be anatomised."+

It may be the imperfect understanding of examples such as these that has led to poor misguided folk at various times writing to anatomists offering to barter their frail and mortal coil for a consideration of sordid gold! These pathetic missives, which still turn up every now and then, appear always to share two points in common; first, the manifest conviction that the art of anatomy is a wildly lucrative profession, and second, that the bargain is to be a hard one-cash down and the body when you can get it !

The third source of supply, to which we now return for a moment, were the body-snatchers. The "profession" of body-snatching became so highly organised, as has already been pointed out, that ample supplies of bodies were always to be had through its ghoulish aid. But the process of getting them conveyed to the Schools was disgraceful often, precarious always, and calculated to bring the teachers not only into disrepute but even into real personal danger. Professors of anatomy themselves, and their surely entirely innocent windows as well, commonly experienced violence at the hands of enraged mobs; there are authentic accounts of some such who were like to have lost their lives indeed, but for the timely protection of the police.

By the end of the third decade of the nineteenth century things had got so bad that both for the honour of medicine and for there own personal safety the teachers were compelled to bring their grievous difficulties to the notice of the Government, and to press for the security of an adequate supply of bodies under the ægis and protection of an Act of Parliament. So strong were the representations then made, that in 1828 the Government appointed a Committee to investigate the whole matter. This Committee took evidence from many sources, teachers of anatomy, police officials, and a chosen few of the resurrection men

^{*} Diary of a Resurrectionist, p. 38. + Brit. Med. Journ. Oct. 21st, 1916, p. 564. ‡ The Times, Oct. 1916.

^{*} Diary of a Resurrectionist, p. 37.

⁺ The History of Burke and Hare, McGregor p. 271.

themselves, who had been induced to give evidence under the promise of ample police protection.

But in this very year the profitable but ghoulish trade in bodies snatched from the grave had progressed, by an all too easy evolution, to some dreadful crimes of murder done on poor victims whose bodies were never to be allowed to enjoy even temporarily the protection of Mother Earth. These were the revolting murders committed by the notorious Burke and Hare in Edinburgh. Though in his dying confession Burke made a point of the fact that they had never been guilty of body-snatching, yet it was a close acquaintance with the customs of "the trade" that actually launched these men on their brief but busy career of crime. The dire game started when an old pensioner who lodged with Hare died while still owing some of his rent. Rather than risk waiting to be recouped by a share of the pension, then nearly due, Hare conceived the idea of conducting a sham funeral with an empty coffin and surreptitiously selling the body for dissection. He found in his neighbour Burke a willing accomplice. Sharing a house in the midst of the warren of broken-down and utterly disreputable slums of Edinburgh not far from Surgeons' Hall, they were well placed from the start. Conveying the body of the old pensioner by night to Surgeons' Hall they realised, as they afterwards confessed, \pounds_7 10s. for the bargain. The immediate sequel to this successful transaction was that the ghastly idea occurred to them that if money was to be made thus easily they could surely gather riches more quickly by letting their own hands act the part of the "Fell Sergeant" who had given their crime the first impetus by laying low the old pensioner under their wretched roof.

So they set out to decoy any poor wandering tramp who might be induced to lend an ear to the promise of lodging and warmth and drink. Once, indeed, they actually succeeded in winning out of the hands of the police, by promising to take care of her, an old drunken woman whom they were on the way to lock up.

In his dying confession Burke gave an account of at least sixteen victims whom Hare and he and the women who lived with them had first decoyed, then murdered in cold blood and conveyed to Surgeons' Hall. Sometimes the intemperance of the victims made them an easy prey, but in some the end was not reached, he confessed, without a fierce struggle. With diabolical cunning, however, Burke had invented a method which made a quiet and sure end, and at the same time left on the body no traces that might arouse suspicion when it came to be laid on the table for dissection. Burke was a man of heavy build and immense muscle, and his method was first to throw his victim down, then to leap on the breast with the whole weight of his knees, and at the same moment grip the mouth and nose with both hands like a vice, thus producing suffocation in a moment or two.

It is a curious speculation to wonder how many of the mild people who to-day speak blandly of having "burked" some question are aware of the sinister etymology of the word they use. It is fast becoming a forgotten fact that this innocent-looking transitive verb owes its origin to the deep impression made on the English-speaking world by the publicity given to Burke's confession of his brutal modus operandi. Surely the penalty of anyone bearing this name must have been a severe one in those days; but it is a consolation to reflect that, with Nature's happy way of covering over evil with a cloak of good, the surname now recalls to us all more readily the other Burke, Edmund, the eloquent orator and author of the immortal essay On the Sublime and Beautiful.

If inclined to marvel that the suspicions of the thoroughly trustworthy officials, who received these murdered bodies into their School, were never aroused, we must remember that in those days the teachers had to take what bodies they could get from the body-snatchers, and had to be content to receive them without any clue as to their source. We must realise, too, that in the rough processes of resurrection and conveyance to the schools these bodies often suffered far more mutilation than any of those offered to the unsuspecting officials by Burke and Hare. Indeed, it is recorded that the body of one their victims, that of a depraved but handsome young woman, was so fairly proportioned and so well preserved, that it was allowed to lie undisturbed for a considerable time, that artists might come to study a model that was said to be "worthy of Phidias and the best Greek art" (Lonsdale's Life of Knox, p. 101). Surely there can have been no trace there of the foul murder that had been done upon it. Yet suspicion had been aroused in two instances where the murderers sailed dangerously close to the wind by making victims of persons who were well known in the neighbourhood of Surgeons' Hall and were recognised at once both by the dissecting-room porter and the students : in these cases awkward questions were asked of the murderers when they arrived with the bodies, but it was surely easy for such cunning criminals to invent circumstantial and believable lies in ascribing their death to natural causes.

How true the saying has often proved to be that "Murder will out !" But there is no saying how long these crimes might have gone undiscovered had this murderous gang of men and women not "given the show away" by growing overbold. One night they actually invited some neighbours to a carouse in the very room where the dead body of their latest and last victim lay awaiting disposal, concealed too carelessly beneath a heap of straw. The story of the remorseless strides with which judgement now fell quickly on them—at the hands, in the first instance, of these carousing guests half frenzied with drink and fear—is a tale too long to be told here. Burke and Hare and their two female accomplices were now soon in the hands of the police and on their trial for murder. Hare turned informer, the women were acquitted, and Burke alone, who had actually carried out the murders they had all planned together, was condemned to death. He was executed in public in January, 1829. His dead body was exposed to the view of a curious crowd, of more than 25,000 people, who filed slowly past it as it lay in the University of Edinburgh, to which it had been consigned for dissection. A notable lecture, full of moral periods, no doubt, as well as anatomical, was delivered on the anatomy of the brain of this man who had planned for so many helpless victims the fate he himself was to suffer in the end. This lecture was given by Prof. Monro, the son of the more famous father, Monro Secundus, after whom the well known foramen connecting the ventricles of the brain is named.

Needless to say, the public disclosure of these awful crimes thrilled the whole land with horror; but it is curiously significant of the effect of geography on politics that when, within two months of the execution of Burke in Edinburgh, a Mr. Warburton introduced a Bill into the House of Commons for "preventing the unlawful disinterment of human bodies and for regulating Schools of Anatomy," no mention was made in that Bill of the dreadful series of murders that had so recently stained the fair fame of the capital of the North.

It seems strange, too, at a time when the legislature might have been expected to welcome, and amend if need be, any Bill framed to prevent the recurrence of such horrors, that Mr. Warburton's Bill was so strongly opposed that, though it survived the House of Commons, it was abandoned in 1830 in its passage through the House of Lords. Truly the Bill had many defects, as first introduced, but it seems extraordinary to us now that it was actively opposed by the Royal College of Surgeons and other public Corporations, and by so powerful a medical periodical as *The Lancet*. It spite of all these opponents, however, it is very probable that it would have been passed by the House of Lords had it not arrived there at a time when the country was seething with the Reform agitation, and the dissolution of Parliament was imminent.

The abandonment of this Bill seemed to have ended for a time all public agitation, and to have nullified the anxious efforts of the authorities of the Schools to secure an adequate legal basis for the practice of anatomy. But the difficulties and alarms which the teachers were still left to face at this time are well shown in the following account of a coroner's inquest held within the walls of St. Bartholomew's Hospital. It is given verbatim from the copy of a contemporary account in the possession of the Librarian. It is dated December 11th, 1831:

ANATOMICAL SUBJECTS.

Coroner's Inquest; December 11th, 1831.

On Thursday afternoon, at 4 o'clock, an inquisition was taken in the Board Room of St. Bartholomew's Hospital, before Mr. Payne, the City Coroner, and a highly respectable jury, on view of the body of a middle-aged man, transmitted from the country to that institution for anatomical purposes, and who, from a dreadful wound in the throat and other marks of violence, was supposed to have fallen a victim to the diabolical system of "Burking," so prevalent of late. Alderman Wilson, at whose instance the inquiry took place, was present, and took a prominent part in the proceedings, and the room was crowded to excess by medical practitioners and other persons interested in the investigation.

Mr. Edward Stanley, the demonstrator of anatomy at the institution, was the first witness examined, who deposed that the body of the deceased man had been sent up from a village, 100 miles in the country. It was packed in a deal box, was received through the same channel which supplies the dissecting rooms of the metropolis with subjects, and arrived at the institution about noon the preceding day. He saw it soon afterwards, and was struck at beholding a wound in the throat, which extended from thence all the way down the body These suspicious appearances induced him to as far as the knee. make amost careful and minute examination of the body in order to ascertain whether the man had died a natural death or not. The result of his observations were, that the deceased had died from consumption, the lungs being much diseased, and he was of opinion that the wounds he he had described were inflicted after death, and in all probability by the instruments used by resurrectionists in extracting bodies from the earth. The deceased appeared to have been dead about a week, and had evidently been interred.

Mr. Stanley added that although he felt satisfied, in his own mind, that the deceased had not come to a violent death, yet, in the present feverish state of the public mind, produced by the fiendish system of "Burking," he did not think himself justified in placing the body in its mutilated state before his puplis, but judged it advisable that a public investigation should take place.

Dr. George Burrows, who had also examined the body, gave similar testimony as to the cause of death.

William Smith, a porter in the institution, stated that he received the body, on its arrival, from the waggon-office. It was placed in the box in a recumbent position, and was quite naked.

In his opinion the corpse had been buried in the ordinary way and had been exhumed by the resurrectionists.

Alderman Wilson : What leads you to suppose that the body had been interred ?

Witness: Because it appears to me to have been drawn through the earth by body-snatchers.

Alderman Wilson: Did you ever then see a body raised by the body-snatchers, as they were termed? (A laugh.)

Witness: No; but I have heard them relate how they do it.

Alderman Wilson: Describe how it is done.

Witness: They first dig down to the head of the coffin, disturbing the earth as little as possible. This enables them to raise the coffin on the feet end. They then force open the lid with a strong instrument, and divesting the body of the shroud, place it in a sack and decamp.

Alderman Wilson: Would the instrument you mentioned inflict the wounds on the deceased in forcing open the coffin ?

Witness: I think it very likely.

A Juryman here observed that he did not conceive it probable that the wound would in such a case have extended so far as the knee; besides, the shroud would, in his opinion, have formed a protection to the bedr

the body. The Witness said that it might have been buried without a shroud.

A Juror observed that he hoped the recent atrocious cases of Burking persons for the dissecting-knife would put medical men on their guard, and that they would be more cautious than heretofore in examining bodies furnished them by the wretches carrying on the disgusting trade of resurrectionists.

The Coroner eulogised the conduct of Mr. Stanley, who had, in The Coroner eulogised the conduct of Mr. Stanley, who had, in the case before them, acted most properly in instituting an inquiry, and the public would now be satisfied that the deceased had died a natural death. If the circumstances of the case had got wind without an inquiry taking place, there was no doubt, from the excited state of the public mind upon the subject, that a very unfavourable opinion would have been formed of the medical gentlemen belonging to the establishment.

The Jury returned a verdict of "Natural Death." The body is to be re-interred at the expense of Cripplegate Ward.

 ment into renewed and speedy action. On November 5th. 1831, in the ordinary routine of the prevailing method of supply, two well-known body-snatchers brought the dead body of a boy to King's College, Strand. The dissectingroom porter was suspicious from the first of the appearance of the body and summoned the Demonstrator, who, from a further examination of the body, confirmed his suspicions. Convinced that the boy had been the victim of foul play, the Demonstrator-Mr. Partridge-hit on a clever ruse for detaining the men; these "transactions," it must be explained, were always conducted on strict "cash" principles. Producing a \pounds 50 note, he asked them to wait in the dissecting-room while he went to have it changed. It was not to a bank he hurried, however, but to the nearest police-station, and very soon the men were safe in gaol. A more complete examination, made later at the instance of the Crown, showed that the boy had died of a broken neck; the men, Bishop and Williams by name, who had been concerned in the attempted "deal" with King's College, were tried for murder at the Old Bailey in the following December and condemned to death. Before their execution they made a full confession of how they had decoyed the lad to their house in Nova Scotia Gardens, Saffron Hill, drugged him with opium, and then thrown him into a well, where he died of suffocation. They confessed, too, to having previously murdered a woman and another boy, and disposed of them successfully to the Schools without arousing any suspicion. Bishop made the further confession that he had been engaged in body-snatching for the past twelve years, and in that time had obtained over 500 bodies and sold them to the Schools.

Something must be said here to maintain the honour of the teachers, who had perforce to deal in those matters with the low ruffians who carried on this ghastly trade. Upright men themselves, of high honour and education, they had no alternative but to deal with those ghouls in order that the science and art of medicine might progress and its students be efficiently trained as proper craftsmen in their life-work. Dr. Knox, the noted anatomist of Surgeons' Hall, Edinburgh, to whose dissecting-room Burke and Hare successfully disposed of all their victims but their last, was publicly attacked after their trial, on account of his supposed connivance with the murderers. He had to be protected by the police from a riotous mob bent on his destruction; but at his own request an influential Committee at once investigated his whole connection with these crimes and completely freed him from any suspicion that he had even any inkling of them before they were revealed to him by the police, and this exoneration was subsequently endorsed by the dying confession of Burke. The account of the inquest in St. Bartholomew's Hospital given above amply illustrates the honour and watchfulness of the teachers at a time when they were in constant danger of being implicated in such horrible crimes. Finally, the astuteness and prompt action of the Demonstrator and porter at King's College in detecting the murder perpetrated by Bishop and Williams stand to their lasting credit, and were actually the chief instrument in bringing to an end this dreadful era of body-snatching and murder.

Bishop and Williams were publicly hanged in Newgate on December 5th, 1831, in presence of an enormous and excited crowd. In their frenzy to get near the scaffold the angry people broke through the barriers erected by the police, and the casualty out-patient room of St. Bartholomew's Hospital must have been a busy scene at 7.30 that morning, as the *Weekly Dispatch* declares that "by that time between 20 and 30 persons were carried thither, all seriously maimed." "Fortunately," the *Dispatch* goes on to state, a "Mr. Birkett, the Dresser to Mr. Vincent," had been forewarned, and "was in attendance to receive any accident that might be brought in."

The bodies of Bishop and Williams, as had been the fate of Burke before them, were handed over to the College of Surgeons, and subsequently given for dissection to the very Schools they had staked their lives to trade with.

This single sordid crime of Bishop and Williams, no doubt because it took place in the heart of London, accomplished at once what the holocaust of murders by Burke and Hare in the north had failed to do. It stirred the Government to immediate action, and the legislation which the teachers, through long years, had earnestly been asking for was hurried forward with express speed. In December, 1831, the same month in which Bishop and Williams were hung, Mr. Warburton again introduced his Bill into the House of Commons, and in a very few months —August, 1832—the Anatomy Act under which we still work took its place among the laws of the realm.

The dark deeds of the previous year find a sinister echo in the "preamble" to this Act :

"Whereas a Knowledge of the Causes and Nature of sundry Diseases which affect the Body, and of the best Methods of treating and curing such Diseases, and of healing and repairing divers Wounds and Injuries to which the Human Frame is liable, cannot be acquired without the Aid of Anatomical Examination: And whereas the legal Supply of Human Bodies for such Anatomical Examinations is insufficient fully to provide the Means of such Knowledge: And whereas, in order further to supply Human Bodies for such Purposes, divers great and grievous Crimes have been committed, and lately Murder, for the single Object of selling for such Purposes the Bodies of the Persons so murdered: And whereas therefore it is highly expedient to give Protection, under certain Regulations, to the Study and Practice of Anatomy, and to prevent, as far as may be, such great and grievous Crimes and Murder as aforesaid; be it therefore enacted " etc., etc.

The chief clauses of the Act, under which all the dissecting and operative surgery work of our medical schools is still carried on, may be briefly summarised : The Secretary of State to grant to duly qualified teachers a licence to practice Anatomy: government inspectors to supervise the whole matter of the supply and burial of subjects; any person having lawful possession of the body of any deceased person legalised to permit the body of such deceased person to undergo anatomical examination, with certain restrictions as to previously expresed wishes on the part of the deceased; no body to be recieved by a school without a certificate of the time, place and cause of death duly signed by some physician, surgeon as apothecary; carefully expressed enactments regarding the respectfuly treatment and decent interment of the body and due certification thereof; repeals the previous Act of George II directing the dissection of the bodies of executed criminals and substitutes burial of these malefactors within the precincts of the prison.

The passing of the Act was hailed with approval and confidence on all sides, as a measure, to quote a contemporary, "which infallibly respects the wishes of the humblest as to the burial of their bodies after death. The pauper and the peer are alike safe."*

Truly it does merit profound praise in that it sounded once and for all the knell of the body snatchers, made the crime of murder for anatomical purposes no longer possible, and established for the first time on a legal and decent basis the necessary place of anatomy in the medical curriculum.

But, alas! it has not stood unscathed the trial of the eightyfour years it has been in operation. The bitter experience of anatomists and operative surgeons in all parts of the country in recent years has proved that it is now quite inadequate to accomplish the beneficent purpose it was framed to serve. Nor are the explanations of this far to seek.

Investigations which immediately preceded the passing of the Act had shown that if *all* the unclaimed bodies of persons dying in the various Poor-law Institutions were made available there would be ample supply of subjects for all the medical schools, and undoubtedly the Act was originally framed principally to legalise this particular source of supply. If the body of a pauper dying in one of these institutions is not claimed by any known relative, then the Guardians become the "Executor or other Party, having lawful possession of the body," as described in the vital clause of the Act; but the crucial defect in this clause is that it merely enacts that "it shall be lawful (for these custodians) to *permit* the body of such deceased person to undergo Anatomical Examination."

Now, it must be admitted that the idea of a human body being dissected may be naturally repugnant to many, and that the revolting crimes which we have passed under review might have added, at that time, to simple repugnance an active prejudice. But it is a matter for wonder and regret that among the men of education forming these Boards of Guardians there are many who, turning a deaf ear to the eloquent preamble of the Anatomy Act, actively oppose the provision of these unclaimed bodics for the beneficent purposes described therein. Unfortunately, too, the desire to escape their responsibility in this matter has actually

* Lonsdale, Life of Knox, p. 106.

been adopted sometimes as a plank on electioneering platforms. It is probably no exaggeration to say that some candidates who have enjoyed no *other* qualifications have scored success at the poll simply because they declared with dramatic fervour in speech and pamphlet that they positively would *not* permit the bodies of the poor to be desecrated by dissection.

It is impossible to regard with any patience or respect such retrogressive prejudice, which, if it were universal, would simply throw the science of medicine back on the deplorable days when human bodies were only to be obtained by inhuman crimes of theft and murder.

With this spirit of obstruction only too common at the fountain-head, it is not surprising that so called philanthropic societies have been formed for the express purpose of contraverting the spirit of the Act by furnishing funds to induce the Guardians actually to divert all unclaimed bodies from the Schools.

Several other factors, naturally unforeseen by the framers of the Act and all quite laudable in conception, have combined in late years to reduce the much-needed supply. Thus, the increase in thrift among the working classes has led to a gradual falling off in the number of persons who seek the shelter of these Poor-law Institutions; the upgrowth of burial clubs and insurance societies among the poor, and the introduction of old-age pensions, now make it much easier than it used to be for the penurious to be themselves responsible for the care, right to the end, of their aged relations. Nevertheless, the number of unclaimed bodies that are still available would be ample to supply the needs of all the medical schools in the country if only their legal custodians, the Boards of Guardians, were at all times intent on carrying out the spirit, as well as the letter, of the Anatomy Act.

So desperate had the difficulties of the schools become in the first decade of the present century, that in 1910 a committee was elected by representatives from all the medical schools in the kingdom to press upon Government once more the urgent necessity for some drastic improvement in the sources of anatomical supply.

This Committee, after making a very complete inquiry into the nature and causes of these difficulties, issued a Report, which was sent to the Prime Minister, with the request that he would receive a deputation. This request was graciously granted. An imposing deputation was forthwith organised and received at the House of Commons, in December, 1912, by the particular Ministers of State in whose province the matter actually lies.

Forming this deputation were representatives from the Faculty of Medicine in every University in the United Kingdom, in almost all cases the Chancellor or Vice-Chancellor; from the Councils of all Royal Colleges of Physicians and Surgeons, in all cases the President; from all the Examining Boards, from the Medical Service of the Royal Navy, the Indian Medical Service, and the Army Medical Service. Little wonder that this galaxy of distinguished men was described by the Home Secretary as forming a deputation "literally and truly unparalleled and unprecedented."

The proceedings of this deputation to the House of Commons were, at the time, kept strictly confidential, and the eloquent and impressive speeches delivered there have not yet been freed for publication. They remain on record, however, in twenty-six closely-typed official pages; and this much may be said, that the opinion unanimously expressed by the speakers, on behalf of the high authorities whom they represented, was that the only likely remedy lay in some such amendment of the Anatomy Act as would render *obligatory* its merely *permissive* enactments in the case of *all unclaimed bodies*, that these bodies should be placed at the disposal of the State, and the State become responsible for their distribution to the medical schools, to serve there the humane purpose indicated so eloquently by the preamble of the Act.

Passages in support of the argument may be recalled from some of the speeches which were then made; first, from that of one of the Vice-Chancellors:

"But after all," he said, "the strongest ground for this appeal to you, sir, is that it is in the interests of the nation, and especially of the poor of the nation. For their safety under all forms of medical treatment, it is absolutely necessary that their physicians and surgeons should come to them not as still experimenters on the human body, but as experts with such knowledge and confidence as can only be provided through a more adequate supply of material in the cases of anatomy and operative surgery than is at present possible."

These words, it is curious to note, read almost like an echo of the speech made by Sir Robert Peel in support of Mr. Warburton's first Bill in 1829^{*}; and the argument, used by another of the speakers in this deputation, on behalf of medical students who had had perforce to go abroad in recent years to enjoy facilities of this kind which were denied to them at home, had likewise been used eighty-three years before.

Another peroration which may be recalled closed the speech of the distinguished soldier who represented His Majesty's Forces. It is of special interest in that it was delivered nearly two years before our country was plunged in war. "I wish to say that it is a matter of national importance that the Medical Officers of our Navy and Army should be highly trained in operative procedures in order that sailors and soldiers may receive that treatment in peace to which they are entitled. Above all should they be able to receive that treatment in war when they have been stricken down in carrying out a patriotic call. I venture to repre-

sent, therefore, that the provision of means to that end is a national duty, conducing to efficiency in public servants and thereby to economy and conservation of life and limb."

Now what of the Government's reply? Here again rang out an echo from 1828. The first admission of the spokesman of the Government was almost identical with that made to a similar deputation in that year; he appreciated the difficulties of the situation, he recognised the necessity for some radical alteration in the Act, but he was very dubious of the possibility of getting these measures, asked for by the deputation, through the House of Commons in face of existing prejudices. But he promised that it would be tried if certain practical suggestions he was prepared to make did not have an immediate effect in removing the difficulties and disabilities abundantly shown by this influential deputation to be so pressing in all parts of the country. These suggestions were considered, shortly after, at a conference held early in the year 1913, and from then till now practically nothing more has been done !

The unforeseen calamity of war has plunged all who took part in this last assault, into many urgent concerns and anxieties of other kinds; the magnificent response made by our students to the call to arms has largely emptied the medical schools; thus the matter has naturally become less urgent now than it was then. But when once more we reach the time of peace, when once again "the (medical) boys come home," when many more will range beside them to swell the ranks of our noble calling, we know we must expect a greater demand than ever for these facilities we have been fighting for.

It is the duty of those of us who are more directly concerned to see to it that the settling of this matter is not delayed until then, and that the Government's pledge is not left to die a natural death in some official pigeon-hole, overlooked and unfulfilled.

But there may also be a part for you who listen to play, students and nurses both, for you both have knowledge and experience of these things, and you may be able, as opportunities occur, to help to remove some of the unthinking prejudice against the science on which rests the only sure foundation of medical teaching. I therefore ask you to lend us your aid in bringing in the happy day when its needs will be more truly and frankly and openly met, when all trace of the dangers and difficulties which have lurked in these dark pages will be spent, and will have left no "aftermath."

* Diary of a Resurrectionist, p. 106.

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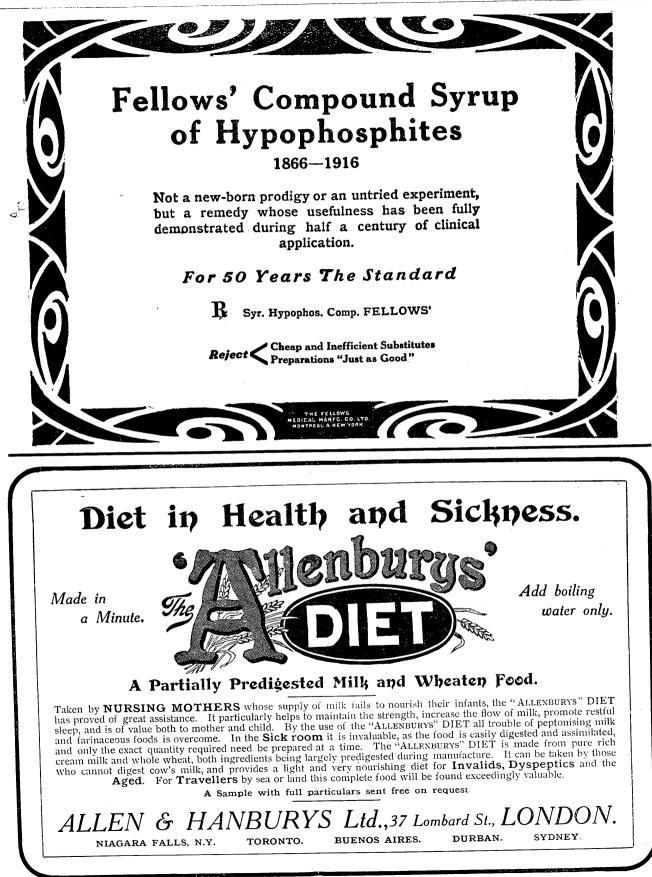
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[DECEMBER, 1916.



DISCUSSION ON PROFESSOR MACPHAILS PAPER.

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Professor T.H. Bryce (Glasgow) said he had been most interested to hear the account of what Professor Macphail had accomplished for the Medical Schools South of the Tweed. It was comforting to learn of the success that had attended his work for the Ministry of Health. In Glasgow there was an ideal arrangement, established since a long time, by which the matter was supervised, under the Inspector of Anatomy, by a Committee consisting of the Senior Magistrates with representatives of the Poor Law authorities and of the Public Health Department in consultation with the teachers. In spite of this, and of a special clause in the Public Health Act, serious shortage of subjects was experienced notwithstanding the good-will of the authorities. Many causes probably combined to this effect. The amelioration of the social conditions of the people tended to reduce the supply. and the only thing to do was to add to the number of This was being actively carried out by the sources. the Inspector of Anatomy with improving results. The preponderance in Hospitals and Asylums of post-mortem examinations on unclaimed bodies - except in exceptional circumstances - should be forbidden. In times of serious shortage when it was impossible to anatomical and for operative surgery classes he thought it would be universally agreed that the students of Anatomy should have the first claim, as nothing can make up for the loss of the experience gained in the practical anatomy This was not so much because the mere facts class. cannot be acquired otherwise but because in no other way than by personal dissection can the student acquire

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a permanent and working knowledge of the structure of the body.

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Professor J.T. Wilson (Cambridge) said that speaking as a teacher of Anatomy in England he desired to express his grateful appreciation of the efforts made by the President of the Section in his capacity as a Medical Officer of the Ministry of Health. As a result of his work the provision of subjects for the teaching of Anatomy in the Cambridge school had been placed on He was grateful to the Ministry a satisfactory basis. for placing an expert in control of these matters. He strongly supported the President's view of the undesirability of claiming for anatomical purposes the bodies of the inmates of Poor Law Institutions on the It was, he held, of the utmost ground of pauperism. importance for the future of the practice of Anatomy to remove from it any stigma of pauperism. In older days the stigma of criminality was attached to the practice of dissection, when practically the only subjects available were the bodies of executed criminals. This has long ceased to be the case, but the stigma of pauperism still remains to a great extent, in as much as it is, and must always be, the case that the majority of unclaimed bodies are those of the impecunious. Yet we must hope that social evolution will progressively diminish the actual amount of pauperism whilst the requirement of bodies for dissection will always remain a stringent necessity for scientific education. In his view the hope for an adequate provision for the future must lie in the removal of all stigmata and in the greting recognition by an enlightened public opinion of the truth that it is not only possible, but a worthy aim, to be of service to the community after death by authorising/

authorising during life the disposal of one's body in furtherance of the interests of medical science.

Professor J.C. Brash (Birmingham) desired to add his testimony to the remarks of the Senior Vice-President as to the valuable work which had been accomplished by the President of the Section. In Birmingham the Supply of Subjects had been slowly but steadily going down until Professor Macphail had visited that area, and now it is steadily increasing, owing of course, to his having made available a supply of unclaimed bodies which would otherwise have been lost. He felt very grateful for the President's careful exposition of the difficult question of compulsory as compared with voluntary action in this matter.) On the invitation of the President, Professor Thomas Walmsley (Belfast) who had visited the Section to listen to the discussion, spoke of the conditions of

anatomical supply in the North of Ireland, where a new Inspector had been appointed now that they were separated from the South. In the consequent re-organisation, while things were still largely in a state of flux, they had proceeded along lines modelled for the most part on those followed by the President in England and Wales. Preliminary Report of Dhe APPENDIX V Anatomical Supply Committee

Private and Confidential.

Oharing Oross Hospital Medical School,

London, W.C.

3

12th December 1911

Dear

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The following preliminary report, drawn up by Mr. McAdam Eccles, Mr. F. G. Parsons and myself, on the Replies received to the letters of enquiry <u>re</u> Supply, will facilitate, it is hoped, the work of the Committee at the Meeting to be held in the Royal College of Surgeons, Lincoln's Inn Fields, on Saturday 11th March at 10.30 a.m.

LETTERS re EXAMINATION.

These were sent to 13 Examining Boards (all of which have sent Replies except the Scottish Conjoint Board and the Apothecaries Hall, Dublin) and to 20 Schools which both examine and teach.

The replies from Scotland and Wales are not sufficient to ad-

In London (including the University, Conjoint Board of R.C.P. and R.C.S., Royal College of Surgeons (Fellowship), Apothecaries Hall, Royal Navy, R.A.M.C. and Indian Medical Service) the figures are:-

Candidates	1908	1909	1910
Anatomy	791	835	871
Operative Surgery	367	3 92	255
Total	1158	1227	1126
	32	30	31
Subjects Average Supply.	1 sub- to 36 candi-	1 to 42.5	1 to 36.5

Examination (continued)

In <u>England</u> (including the Universities of Cxford, Durham, Birmingham, Liverpool, Leeds, but excluding Cambridge).

2.

Candidates	1908	1909	1910
Anatomy Operative Surge:	138 ry <u>74</u>	156 72	137
Total	212	228	208
Subjects	20	22	18
Average Supply	1 sub- to 10.61 candi	1 to 10.3	1 to 11.5

In <u>Ireland</u> (including Trinity College, University College and R.C.S.I., Dublin, University College, Cork, and Queen's University, Belfast):-

<u>Oandidates</u>	1908	1909	1910
Anatomy Operative Surgery	281 <u>166</u>	260 193	507 <u>310</u>
Total	447	453	817
Subjects	53	49	69
Average Supply 1	sub: to 8.4 cand:	1 to 9.2	1 to 11.8

Complaints, by Examiners, of inadequate supply in Operative Surgery have been made in the Universities of Oxford, Aberdeen and gousgow.

LETTERS re TEACHING.

These were sent to :-

(a). 18 London Schools (9 teaching both Anatomy and Operative Surgery,
7 Operative Surgery only and 2 Anatomy only). Replies from all.
(b). 9 Schools in <u>England</u> (all teaching and examining in both subjects)
Replies not yet received from Universities of Cambridge and Bristol.
(c). 1 School in <u>Wales</u> (Oardiff - teaching and examining in Anatomy only.

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Teaching (continued)

(d). 9 Schools in <u>Scotland</u> (all teaching, and 4 examining in, both subjects). Replies not yet received from School of Medicine for Women, Edinburgh, and Western Medical School, Glasgow.

3.

- (e). 6 Schools in <u>Ireland</u> (all teaching and examining in both subjects). No reply from University College, Galway.
- I. An adequate supply (in 1910) is declared by:-
 - (a) London. St. George's and Westminster (Op: Surgery only).
 - (b) <u>Ingland</u> Universities of Oxford, Manchester (precarious) Birmingham, (inadequate 1911), Leeds, Sheffield.
 - (c) Wales. University College, Cardiff.
 - (d) <u>Scotland</u>. The University of Glasgow, Anderson's College and St. Mungo's College, Glasgow.
 - (e) <u>Ireland</u>. Trinity College, University College and R.C.S.I., Dublin, Queen's University, Belfast (diminishing).

= 15 Centres with an adequate supply.

An <u>inadequate supply</u> is declared by 15 London, 1 English, 1 Irish, and 4 Scottish Schools.

= 21 Centres with an inadequate supply.

II. An analysis of the number of Students proportional to the number of Subjects received for Teaching (Anatomy and Cp: Surgery both included) shows:-

(a) in London an average of 7.1 students to 1 subject.

(Ъ) "	England ".	l	n	5	n	- 11	1	- #
(0) "	Wales "	a	n	6.6			n	Contraction of the
(đ) "	Scotland	n	11	G∙ 9	u	N	u	n
(e) I	Ireland "	n ″	11	2.7	n	N	1	8

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Teaching (continued)

The replies from Cook's School of Anatomy (London), Edinburgh University, Glasgow University and Anderson's College (Saotland), do not give the actual number of subjects received and so do not appear in these averages.

III. (a) Replies as to flefinition of "Adequate "Supply:-Maximum for anatomy - 2 dubjects per student. Minimum " " -25 " " " Maximum for Op. Surgery - 1 " " Minimum " " " - 12" " "

(b) Necessary Minimum

The Maximum given for Anatomy is 14 subject per student.

ĸ	minimum	n -	ų n si	古	B	R	N
Ø	maximum	N .	" Op. Surgery"	늉	B	H	u
1	minimum		n n n N	20	n ,	n	8

IV. Refusal of Subjects

Except in the case of three Dublin Schools, the answer to this question is negative. In a few instances supply has been countermanded for short periods in vacation time.

- V. Causes of Inadequacy
 - (a) Diminution in actual numbers of unclaimed sub-
 - (b) Diminished death rate.
 - (c) Old Age Pensions.
 - (d) Insurance and Funeral Societies.

Causes of Inadequacy (continued).

(f) Apathy, hostility, timidity of Boards of Guardians, Masters and Stewards of Warkhouses, Inspectors of Poor.

- (g) Illegality of any payment given for trouble taken by subordinates.
- (h) Aliens claimed by foreign pastors.
- (i) Olaims on sentimental grounds by Beligious Bodies.
- (j) Transference of unclaimed paupers to Parish of birth.
- (k) P.M. and Operative zeal of jumior medical officers.
- (1) Want of support from General Medical Council, Examining Bodies and Government.
- V1. Methods Suggested.
 - (a) Amendment or addition to existing Anatomy Act.
 - (b) Introduction into Parliamentary Bill of a clause similar to that in the Edinburgh Municipal Act of 1891.
 - (c) Influential representation to Home Office and Local Government Board to secure compulsory delivery of all unclaimed bodies to some Government official.
 - (d) Licensed Teachers not to appear, as such, in any representations made.
 - (e) Co-operation of Examining Bodies, General Medical Council, Navy and Army Medical

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liethods Suggested (continued).

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Departments to be secured.

- (f) Canvassing to secure active support of Boards of Guardians, Parish Councils, and Workhouse Masters.
- (g) The legalising of a small notification or registration fee to be paid to subordinate officials in return for enquiries made and trouble taken.

I am,

Yours faithfully,

aley Machmail

How. Secretary Anatomical Supply Committee

Report	· of Anato	Smical Supp		inittee
(issued to the	ie Licensed			Kuig dom)
	Confidenti	al Letters of	Inquiry	were sent

- to the authorities of all Universities, Medical Corporations, and Medical Schools regarding -
 - (a) The necessary minimum supply per student for the teaching of anatomy and operative surgery.

APPENDIX

- (b) The adequacy of the present supply.
- (c) The known causes of inadequate supply, and
- (d) the suggestion of methods whereby these might be overcome.

Replies were received from all, to the number of fifty-four, only a few of which did not furnish all the details required, and the large amount of information thereby placed in the hands of the Committee may be summarised thus:

- (a) The necessary minimum for a complete course of anatomy and operative surgery is one subject per student.
- (b) An inadequate supply is declared in twenty-two instances, an adequate but precarious supply in sixteen.
- (c) The chief causes of inadequate supply given are:- the apathy, hostility, or disinclination to accept responsibility on the part of Boards of Guardians, Masters, Stewards and Governors of Workhouses, and Inspectors of Poor. Among other causes mentioned are:the operation of insurance and funeral societies, the claims on sentimental grounds by religious and other organisations, the routine performance of post-mortem enaminations. In addition to the above causes which might possibly be removed by future legislation, the decrease in the actual number of unclaimed bodies, and the operation of the Old Age Pension Act, are cited as factors in the diminishing supply.
- (d) Having considered the suggestions of the various authorities consulted, the Committee recommends the consideration of the following means by which the supply might possibly be rendered adequate:-

That/

- That His Majesty's Government be approached by an influential Representation, to press for an amendment of the existing Anatomy Acts, or the introduction into a Parliamentary Bill of a clause, whereby it shall be compulsory for the legal custodians of any unclaimed body to notify the possession of the same to an accredited Government official, and to act on his instructions regarding its disposal. (The members representing the London Schools on this Committee regard the institution of a small notification fee as essential for the successful working of any such scheme).
- The Committee thinks it inadvisable that the Licensed Teachers should appear as such in this deputation, but that suitable representatives should be nominated by each of the Universities and Medical Corporations, the General Medical Council, the Medical Department of the Royal Navy, the Army Ledical Service, and the Indian Medical Service, together with a representative from the British Dental Association.

As the result of extensive inquiries among the Medical Schools of Europe and America by the Chairman, Professor Alexander Macalister, the Committee has acquired much valuable information regarding the present conditions abroad.

In Europe, in those centres where no compulsory Anatomy Act exists, the supply is in all cases inadequate. Where there is a compulsory Act, the supply is in most cases adequate, though in a few it is not so.

In all the American centres which have supplied information a compulsory Act exists and all declare an ample supply. In the present year (1911) a compulsory Anatomy Act has been passed by the Union of South Africa and is known to be working successfully.

The/

The Committee has approached by letter the "Association of Poor Law Unions" (England) requesting their co-operation in improving the sources of supply, and a committee of that Association has the matter under consideration and will shortly report.

These investigations, which the Committee now begs leave to submit, have occupied necessarily a considerable time to collect and report upon, and the Committee feels that steps should be taken as promptly as possible to deal with its recommendations.

12th December, 1912.

APPENDIX VI

NOTE OF THE PROCEEDINGS

AT A

CONFERENCE ON THE SUPPLY OF BODIES FOR ANATOMICAL PURPOSES,

HELD AT

THE HOME OFFICE ON MARCH 5, 1913.

PRESENT :

Sir WILLIAM BYRNE, K.C.V.O. (Chairman).

Mr. A. J. EAGLESTON. Sir William Bennett, K.C.V.O., F.R.C.S. Home Office.

Mr. T. PICKERING PICK, F.R.C.S. Sir ARTHUR DOWNES, M.D., Local Government Board. Sir GEORGE NEWMAN, M.D., Board of Education.

Mr. P. J. G. Rose, Scottish Office.

Mr. ALEXANDER MACALISTER, M.A., M.D. (Professor of Anatomy, Cambridge). Mr. ARTHUR THOMSON, M.B. (Professor of Anatomy, Oxford). Mr. W. MCADAM Eccles, F.R.C.S. (Chairman of the London Anatomical Committee).

Mr. F. G. PARSONS, F.R.C.S. (Secretary of the London Anatomical Committee).

Mr. ALEXANDER MACPHAIL, M.B. (Hon. Sec., Anatomical Supply Committee).

Sir WILLIAM BYRNE, having welcomed the Members of the Conference, said that, having read the returns that had been printed, everyone present would be aware of the varying extent of the difficulties that had been experienced in proaware of the varying extent of the different places. He assured them that curing bodies for anatomical purposes in different places. He assured them that the Home Secretary was very willing to help them, and he would place one or two suggestions which had been received before them for discussion. He thought the difficulties could be met without having to resort to legislation, although, perhaps, they might have to resort to that method finally.

The facts were quite clear: there is a marked inadequacy in the supply of bodies. Notwithstanding the decrease in the number of students, there was not a sufficient increase in the number of bodies per student available. The statistics showed a marked inadequacy in London, Cambridge, and Oxford; Birmingham was perhaps the worst off. Manchester seemed to have all they required; everybody else complained that they have no bodies. As to Scotland, the supply there seemed to have been consistently good; at Aberdeen it was reported to be very inadequate. At Manchester, in 1911, where they had an unlimited supply, nevertheless they got 43 bodies for 128 students. Why did they confine themselves to this small number seeing that their source of supply was the workhouse which could furnish many more? This was only one body for three students.

Mr. Pick said he could give no explanation. The master of the workhouse in Manchester is very enthusiastic and takes care that every unclaimed body went to the school. It was peculiar that many of the subjects were Roman Catholics. During the session Manchester got all they required. Sir WILLIAM BYRNE: If every school in England had one body per student,

would that suffice?

Various MEMBERS of the Conference agreed that it would be enough both for the junior students, the examinations, and the higher teaching of surgery, but the existing supply was far short of that.

(28953-.1) Wt. 44616-G 668. 50. 3/13. D & S.

Professor MACALISTER said that, when a new election of Guardians was being held in any place, many of the candidates were voted for only on condition that they agreed that the supply of bodies for anatomical purposes from the local work-house should be stopped. There were many difficulties to contend with: (1) with the Boards of Guardians; (2) with the master of the workhouse. Sometimes the Boards of Guardians were agreeable, but the master of the workhouse refused; in some cases *vice versa*; in other cases, the master of the workhouse was forbidden to supply bodies under any condition. He produced an offensive election handbill about "body snatchers.'

Sir WILLIAM BYRNE asked if there were any cases in which institutions are not . encouraged to continue sending bodies to the schools : the inspector has knowledge of such cases-some years ago-where bodies were refused because they had been subject to post-mortem, or the school term was ending, and so on. Would it not be better to accept bodies at all times and to bury at their own expense those not good enough for anatomical purposes?

Mr. MCADAM Eccles said that no bodies were ever refused; it was easy to get rid of any that were of no use.

Sir WILLIAM BYRNE asked the Conference if they would agree : That no body shall in any circumstances be refused, even on the ground that a post-mortem had already been made.

The MEMBERS of the Conference quite agreed to this.

Professor Thomson asked if they could not have some idea of the number of Possibly they could not take every one, and too many might unclaimed bodies. be of no use at all for anatomical purposes.

Sir WILLIAM BYRNE said we had no exact statistics showing the number of unclaimed bodies in the kingdom, and no doubt the total would be far beyond Would they be prepared to say: We will be willing to take bodies up their wants. to such-and-such a number, whether they had been post-mortemed or not?

Mr. McADAM Eccles said that nearly all the bodies received by them had been post-mortemed and so were not of so much value. Could not the schools do the post-mortem on behalf of the asylums and report to them? The Metropolitan Asylums Board have agreed to leave the post-mortem on all bodies from their asylums to the schools.

Sir ARTHUR DOWNES explained that the rule in all London county asylums was to subject every body to post-mortem, so that certainly the brain and the spinal cord would have been interfered with when the body reached the schools.

Professor Thomson said that after a complete post-mortem the bodies were practically useless for anatomical purposes. Could not the asylums run a preservative into the body after a careful and limited post-mortem had been made; they would then be of much more use.

Sir ARTHUR DOWNES said that representations would be made to the Lunacy Commissioners to use their influence to secure that bodies should, as far as possible, be sent to the schools in such a state as not to be useless for anatomical teaching and practice.

Sir WILLIAM BYRNE asked if they got all the bodies unclaimed in the institu-

tions referred to in Column 6 of the printed form (Table I.), would that be enough? Professor THOMSON remarked that Marylebone sent 37 bodies and yet had not a large workhouse, whereas St. Pancras sent only one body. He knew that St. Pancras had 40 unclaimed bodies in one year; why did they not get all of these?

Sir WILLIAM BYRNE: The general opinion seemed to be that in London the supply would be adequate if *all* unclaimed bodies were supplied by the places which now sent some, without seeking other sources. In the provinces would the same be true?

Mr. PICK: In the provinces the great drawback is the Boards of Guardians; they refused to help the schools at all, and would not even see the teachers.

Professor MACALISTER produced a card which had been widely circulated in which electors were advised not to vote for the "body-snatchers." It was produced by an undertaker.

Sir WILLIAM BYRNE asked the opinion of the Conference as to the advisability of a well-considered Memorandum from the Government which might be sent to all Boards of Guardians and, indeed, made public in newspapers, &c. showing how necessary it was in the interests of the people, for whose sake the profession existed, that all unclaimed bodies should be sent to the schools of anatomy.

Professor MACALISTER said he hesitated in recommending a circular. One was issued from Cambridge in 1884, but was not of much use. (Copy handed in.) Guardians refused to see him when he asked for an interview. At Norwich he was practically insulted.

Mr. PARSONS: I think some steps should be taken to compel Boards of Guardians; the Government should bring home to them the necessity of providing bodies.

Sir ARTHUR DOWNES: The Boards of Guardians resent Government inter-It is quite possible that they would refuse to do anything in response to ference. such a circular; he thought therefore that the Government had better take no overt action.

Sir WILLIAM BYRNE to Sir Arthur Downes: Was the experience of your inspectors at the time when they were authorised to take discreet private action so discouraging as you feared it would be?

The Unions will not give up the bodies any Sir Arthur Downes: It was. more freely. Our inspectors were often advised by well-wishers not to broach the subject for fear of doing more harm than good.

Professor THOMSON asked if he might read a statement prepared and concurred in by all his colleagues.

He then read the attached statement (Appendix A.).

Sir WILLIAM BYRNE: It is evident that something would be done if we could bring home to people the horrible fact that, owing to the inadequacy of the supply of bodies men are being admitted to practice every day who have never been pro-Are you willing to agree to a Government circular mentioning perly taught. the facts, as they have been represented to us so strongly by you and by the Army and Navy Medical Authorities?

Sir ARTHUR DOWNES: It would need careful consideration. (The suggestion evidently did not recommend itself generally to the Conference.)

Sir WILLIAM BYRNE: The Poor Law Authorities and newspapers might be I want to know what you think of issuing a circular. (The Concircularised. Then there is the other alternative, the adoption of ference evidently doubted.) the Scottish system. Do you think it would be practicable to form a Committee to deal with the question in each locality? In Scotland it is done in one place by a Committee consisting of the inspector and the teachers, in others by Committees on which the Lord Provost, heads of Poor Law Authorities, and other people sit. \mathbf{Is} it possible to introduce some such system in England?

Mr. McAdam Eccles: In England we should be against the circular. There are a sufficient number of unclaimed bodies; it is to know how to get hold of them. We look to the Home Office and the Local Government Board for help. We should then be able to do all we want to do. It ought to be easy to get a number of bodies with just a little of the official lever. How should that official lever be supplied? Why not a Government official to accompany the teachers when applying for bodies. The Metropolitan Asylums Board help them considerably.

Sir WILLIAM BYRNE : The Metropolitan Asylums Board is a well-informed and superior body.

Sir ARTHUR DOWNES : The Metropolitan Asylums Board are fortunate enough not to have to face electors.

(The feeling of the Conference appeared to be in favour of help being given by the Departments in individual applications by the teachers.)

Sir WILLIAM BENNETT : You cannot get your bodies unless the person responsible for distributing them is sympathetic.

Sir WILLIAM BYRNE: Then another proposal should be discussed. It has occurred to us to provide an official fee for sending up the certificate-the inspector gets one for every body-say, 5s. or 10s., to be paid by the inspector for every certificate received in his office and to be refunded to the Home Office at the end of the year or quarter by the schools who have received the bodies. Would that remove the difficulty?

Mr. MCADAM ECCLES: So far as London is concerned that would be a very good help.

Sir WILLIAM BENNETT : Some of the people who do not supply bodies now used to do so when they received a fee. It became necessary some years ago to forbid any payment of fees or "tips," owing to a certain scandal which occurred.

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Sir ARTHUR DOWNES: Unless some remuneration is paid to these officials (the workhouse masters) you will not get any help. You must pay them if you want any bodies. Therefore I think you will have to pay an official fee for the certificate, like that charged by magistrates' clerks for the performance of certain of their duties.

Mr. McAdam Eccles asked if there was any statutory requirement that no workhouse master would be able to receive any such fee.

Sir ARTHUR DOWNES : There is no statutory requirement.

Mr. MCADAM ECCLES: The scheme would be a very good thing for London. The fee should be not less than 7s. 6d., but not so much as 15s.

Sir WILLIAM BYRNE: Do you all agree that if that was possible it would be beneficial?

Professor MACALISTER: In the country the Boards of Guardians would be jealous of the master of the workhouse getting the money, and it might not be workable, and it might increase the cry about "selling the bodies of the poor."

Sir WILLIAM BYRNE: They need not know anything about it. It would be an official fee payable for a certificate and would come from the inspector's office, and none but officials would know about it. I think we would get the Treasury to pay the fee. We pay hundreds to doctors who report cases of interest to us, and we think it would be possible. Of course, we cannot promise it definitely.

Mr. MCADAM ECCLES: The payment of the fee to the workhouse master would not bring about a reduction of his salary?

Sir WILLIAM BENNETT: Fees to people who send certificates should go to the people who make them out; the workhouse master ought to have them for himself.

Sir ARTHUR DOWNES: A similar question has been raised about fees under the Lunacy Acts for the certification of lunatics. In some recent cases newly-appointed medical officers have received increases of salary, on condition that they pay all the fees due under the Statute and received by them into the treasury of the Council.

(There seemed to be general approval of the proposed fee.)

Sir WILLIAM BYRNE: Would you think it better to have a Committee as I have suggested—to consist of the Chairman of the principal Boards of Guardians, County Councils, teachers, &c., who could manage and arrange these things in each locality?

Professor THOMSON: I have not considered that suggestion; all the business transactions are transacted by the inspector and his clerk. What I should like to get at is the asylums.

Mr. PICK did not think the committee idea would be of much use to the provinces; it might be suitable for London.

Professor MACALISTER asked what they were to say to the Scotch and Irish representatives.

Sir WILLIAM BYRNE said that the Irish Government had forwarded a memorandum, and had expressed a wish to be informed of the views of the Conference, but did not think it necessary to send a representative. He asked if they who were present were not in a position to explain the position in Scotland, and to bring forward the Scottish suggestion.

Professor MACALISTER : No, I am afraid not.

Sir WILLIAM BYRNE: I must now ask you to excuse me, as I have an important engagement. I will communicate to the Secretary of State all you have told me, and will speak to the various Government Departments and let you know what we think. We will look upon Dr. Macphail as your corresponding representative, and will let him know what suggestions are held to be practicable before a decision is come to. No doubt you will consider the suggestions we have made, and will let us know what you think; and, perhaps, you will be good enough to come again if necessary.

Mr. McAdam Eccles thanked Sir William for receiving the Conference.

(The Members then withdrew.)

APPENDIX A.

The following suggestions are made in accordance with the expressed desire of the Secretary of State, to the effect that, before having recourse to such extreme measures as would be involved in an amendment of the Anatomy Act (Cap. LXXV., 1832), we should make attempts on safer lines and confer with the various Departments as to what steps can be taken to overcome the apathy and timidity of Boards of Guardians and other bodies concerned.

In this connexion it seems desirable to consider whether the responsible Departments of State should undertake the preparation of a statement which might be circulated among Guardians, Asylum Boards, Coroners, &c., setting forth their powers, as defined by the Act, in regard to the disposal of the bodies of the unclaimed dead, and urging upon them the necessity of exercising these powers in the public interest.

The circular, which would thus be of an official character, might include a recital of the preamble of the Anatomy Act, supplemented by such evidence of its necessity and working as are included in the accompanying documents, and in conclusion some statement might be added to the effect that unless the Government could secure the co-operation of these bodies to give effect to the powers entrusted to them, a further amendment of the Act might become necessary, since without this the Government would be unable to supply that skilled professional attendance which it had undertaken to provide under the Insurance Act.

It would also be necessary for the officials of the respective departments to consider what methods they might adopt to ensure compliance with the spirit of the Act. (In Canada I understand the Government withholds certain grants for failure to comply with their Act.)

It seems, too, that in approaching the Bodies having legal custody of the bodies of the unclaimed dead the application should be supported, and in fact made through, some Government official, since the present system makes it appear as if it were a request of a personal character in which the interests of the applicant or the school which he represents were alone concerned, in place of being an appeal addressed primarily in the interests of the public, for the care of whose health the profession at large is responsible. I think this is all the more necessary as it not unfrequently happens that questions are asked as to whether or no money is made out of the sale of bodies. This is a matter which should be cleared up.

Further, there is no doubt that Boards of Guardians and others having possession of unclaimed bodies would feel that they incurred less individual responsibility were a Government official present on the occasion of such applications, for they would then have the opportunity of assuring themselves that their action was strictly legal, and that what they were asked to do was not to assent to an individual application only, but to meet a public need.

Some such arrangement as this seems all the more necessary as in my experience the legal aspects of the case have always to be explained at great length by the person making the application, a method, of course, open to suspicion by those to whom the request is made, and in regard to which they have only the opinion of their clerk (usually a legal gentleman) to fall back upon. It does sometimes happen that this officer is himself prejudiced, and may go out of his way to emphasise the fact that the Act is permissive and not obligatory, and that therefore the Guardians are quite within their rights in refusing to entertain the application.

In practice there can be little doubt but that the attitude of these officials to a large extent determines the decision of the Board, except in those cases where the Chairman is a man of courage and independence, and of some influence with the other members.

There is another detail to which I would venture to draw your attention; it refers to the independent action often taken by the masters of workhouses. Cases have occurred and do occur, in which even although the Guardians have passed a resolution approving of the disposal of the bodies of the unclaimed dead for the purpose of anatomical examination, masters, either unsympathetic, or anxious to avoid responsibility, or disinclined to put themselves to trouble in the way of making enquiries which is outside their ordinary routine work and for which they receive no remuneration, have practically rendered the assent of the Board valueless by failing to report or declining to transfer the bodies of such unclaimed persons. In such cases it might be well to determine who the party is "Having lawful possession of the body" (Clause VII), and consider what steps can be taken to enforce the instructions of the Guardians.

to enforce the instructions of the Guardians. In conclusion, may I submit for your consideration the question whether under the terms of Clause XV of the Anatomy Act it is not possible, in the event of the Guardians failing to comply with the spirit of the Act, for the Secretary of State, or his representative, to direct that a post-mortem examination should be made on the body of any unclaimed person, for such examination involves anatomical examination, or to examine anatomically (see Clause XIII), and might it not be held for the purposes of the Act that the two kinds of examination were one and the same thing?

March 5, 1913.

ARTHUR THOMSON.

CONFIDENTIAL.

<u>APPENDIX VIII</u>

ANATOMICAL SUPPLY COMMITTEE OF GREAT BRITAIN AND IRELAND.

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OF

PROCEEDINGS

IN RELATION TO

THE PRESENT DEFICIENCY OF

ANATOMICAL SUPPLY

IN THE

UNITED KINGDOM.

1919.

Fondon

ADLARD & SON & WEST NEWMAN, LTD., BARTHOLOMEW CLOSE, E.C.

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I. FORMATION OF THE COMMITTEE.

THE number of unclaimed bodies, provided through the Anatomy Act [William IV, Cap. lxxv, 1832] for teaching, examinations and research in Anatomy and Operative Surgery in all the Universities and Medical Schools of the United Kingdom, having steadily fallen far below the minimum requirements, the Licensed Teachers of these subjects met at the Royal College of Surgeons, England, in November, 1910, and appointed a Committee—hereafter called the "Anatomical Supply Committee"—to conduct an inquiry into the existing conditions of demand and supply in this matter.

This Committee, which included representatives from all parts of the United Kingdom, held several meetings, conducted a minute inquiry, and submitted the following Report to a second meeting of Licensed Teachers held at the same place in January, 1912.

II. REPORT OF COMMITTEE TO LICENSED TEACHERS.

THE Committee which was appointed by the Licensed Teachers of Anatomy and Operative Surgery of Great Britain and Ireland at the meeting held in the Royal College of Surgeons of England, London, on November 26th, 1910, having completed its inquiry into the condition of Anatomical Supply at present existing in all parts of the United Kingdom, now begs leave to submit the following Report:

Confidential Letters of Inquiry were sent to the authorities of all Universities, Medical Corporations, and Medical Schools regarding—

- (a) The necessary minimum supply per student for the teaching of anatomy and operative surgery.
- (b) The adequacy of the present supply.
- (c) The known causes of inadequate supply, and
- (d) the suggestion of methods whereby these might be overcome.

Replies were received from all, to the number of fifty-four, only a few of which did not furnish all the details required, and the large amount of information thereby placed in the hands of the Committee may be summarised thus :

- (a) The necessary minimum for a complete course of anatomy and operative surgery is one subject per student.
- (b) An inadequate supply is declared in twenty-two instances, an adequate but precarious supply in sixteen.
- (c) The chief causes of inadequate supply given are: the apathy, hostility, or disinclination to accept responsibility on the part of Boards of Guardians, Masters, Stewards and Governors of Workhouses, and Inspectors of Poor. Among other causes mentioned are: The operation of insurance and funeral societies, the claims on sentimental grounds by religious and other organisations, the routine performance of post-mortem examinations. In addition to the above causes which might possibly be removed by future legislation, the decrease in the actual number of unclaimed bodies, and the operation of the Old Age Pension Act, are cited as factors in the diminishing supply.
- (d) Having considered the suggestions of the various authorities consulted, the Committee recommends the consideration of the following means by which the supply might possibly be rendered adequate:
- That His Majesty's Government be approached by an influential Representation, to press for an amendment of the existing

Anatomy Acts, or the introduction into a Parliamentary Bill of a clause, whereby it shall be compulsory for the legal custodians of any unclaimed body to notify the possession of the same to an accredited Government official, and to act on his instructions regarding its disposal. [The members representing the London Schools on this Committee regard the institution of a small notification fee as essential for the successful working of any such scheme.]

The Committee thinks it inadvisable that the Licensed Teachers should appear as such in this deputation, but that suitable representatives should be nominated by each of the Universities and Medical Corporations, the General Medical Council, the Medical Department of the Royal Navy, the Army Medical Service, and the Indian Medical Service, together with a representative from the British Dental Association.

As the result of extensive inquiries among the Medical Schools of Europe and America by the Chairman, Professor Alexander Macalister, the Committee has acquired much valuable information regarding the present conditions abroad.

In Europe, in those centres where no compulsory Anatomy Act exists, the supply is in all cases inadequate. Where there is a compulsory Act, the supply is in most cases adequate, though in a few it is not so.

In all the American centres which have supplied information a compulsory Act exists and all declare an ample supply. In the present year (1911) a compulsory Anatomy Act has been passed by the Union of South Africa and is known to be working successfully.

The Committee has approached by letter the "Association of Poor Law Unions" (England) requesting their co-operation in improving the sources of supply, and a committee of that Association has the matter under consideration and will shortly report.

These investigations, which the Committee now begs leave to submit, have occupied necessarily a considerable time to collect and report upon, and the Committee feels that steps should be taken as promptly as possible to deal with its recommendations.

(Signed) ALEXANDER MACALISTER, University of Cambridge (Convener).

> ARTHUR THOMSON, University of Oxford. R. W. REID, University of Aberdeen (President of the Anatomical Society). ARTHUR ROBINSON, University of Edinburgh. A. M. PATERSON, University of Liverpool. JOHNSON SYMINGTON, Queen's University, Belfast. A. F. DIXON, Trinity College, Dublin. W. MCADAM ECCLES, St. Bartholomew's, London. F. G. PARSONS, St. Thomas's, London. E. M. PILCHER (MAJOR), R.A.M.C. College, London. ALEXANDER MACPHAIL, King's College, London

(Hon. Secretary).

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III. DEPUTATION TO THE SECRETARY OF STATE FOR HOME AFFAIRS.

ON receiving this Report the meeting of Licensed Teachers instructed the Committee to bring this urgent state of affairs to the notice of His Majesty's Government. In February, 1912, the Prime Minister was approached on the matter through Dr. Christopher Addison, M.P., and at the request of the Prime Minister the Secretary for State communicated with the Committee asking it to organise an influential Deputation to discuss the matter with himself and other Ministers of the Crown

This Deputation included representatives of all the Universities and Licensing Corporations of the United Kingdom, the General Medical Council of Education and Registration, His Majesty's Departments of Medical Service, and the British Dental Association.

The names of these attending the Deputation follow:

COLONEL FRANCIS G. ADYE-CURRAN, M.D., F.R.C.S.I., Member of the General Medical Council.

Representing THE APOTHECARIES HALL OF IRELAND.

SIR CHARLES BENT BALL, BART., M.D., F.R.C.S., Regius Professor of Surgery, University of Dublin; Chairman, Examination Committee, General Medical Council.

Representing THE UNIVERSITY OF DUBLIN.

H. GILBERT BARLING, M.B., B.S., F.R.C.S., Professor of Surgery, University of Birmingham.

Representing THE UNIVERSITY OF BIRMINGHAM.

SIR THOMAS BARLOW, BART., K.C.V.O., F.R.S., M.D., D.Sc., Consulting Physician to University College Hospital; President of the Royal College of Physicians of England; President of the 17th International Congress of Medicine.

Representing THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

- J. J. GRAHAM BROWN, M.D., F.R.S.E., President of the Royal College of Physicians, Edinburgh. Representing THE ROYAL COLLEGE OF PHYSICIANS, EDINBURGH.
- SIR ALFRED W. W. DALE, M.A., LL.D., Vice-Chancellor of the University of Liverpool.

Representing THE UNIVERSITY OF LIVERPOOL.

(6)

A. FRANCIS DIXON, M.B., B.CH., D.Sc., University Professor of Anatomy, Trinity College, Dublin.

Representing THE ANATOMICAL SUPPLY COMMITTEE.

WILLIAM MCADAM ECCLES, M.S., M.B., F.R.C.S., Surgeon to St. Bartholomew's Hospital. Representing THE ANATOMICAL SUPPLY COMMITTEE.

FLEET-SURGEON ARTHUR GASKELL, F.R.C.S., Director of Studies

R.N. Medical School, Greenwich. Representing THE MEDICAL DEPARTMENT OF THE ROYAL NAVY.

SIR RICKMAN J. GODLEE, BART., M.S., M.B., B.A., Professor of Clinical Surgery, University College Hospital; President of the Royal College of Surgeons of England. Representing THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

SIR ALFRED PEARCE GOULD, K.C.V.O., M.S., M.B., F.R.C.S., Surgeon to Middlesex Hospital; Dean of the Faculty of Medicine, the University of London.

Representing THE UNIVERSITY OF LONDON.

DAVID HEPBURN, M.D., C.M., F.R.S.E., Professor of Anatomy and Dean of the Medical Faculty, University College, Cardiff. Representing THE UNIVERSITY OF WALES.

WILMOT P. HERRINGHAM, M.D., B.A., F.R.C.P., Physician, St. Bartholomew's Hospital; Vice-Chancellor of the University of London.

Representing THE UNIVERSITY OF LONDON.

- SIR ALFRED HOPKINSON, K.C., M.A., LL.D., B.C.L., Vice-Chancellor, Victoria University of Munchester. Representing THE VICTORIA UNIVERSITY OF MANCHESTER.
- R. MCKENZIE JOHNSTON, M.D., F.R.C.S.E., Consulting Surgeon, Royal Infirmary, Edinburgh; Treasurer of the Royal College of Surgeons, Edinburgh. Representing THE ROYAL COLLEGE OF SURGEONS, EDINBURGH.

ARTHUR KEITH, M.D., LL.D., F.R.C.S., Conservator of the Museum of the Royal College of Surgeous of England; Chairman of the Anatomical Committee of London. Representing THE ANATOMICAL COMMITTEE OF LONDON.

DAVID N. KNOX, M.A., M.B., C.M., F.R.P.&S.G., Member of the General Medical Council.

Representing

THE ROYAL FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

H. HARVEY LITTLEJOHN, M.B., M.A., B.Sc., F.R.C.S.E., Professor of Forensic Medicine; Dean of the Faculty of Medicine, University of Edinburgh.

Representing THE UNIVERSITY OF EDINBURGH.

ALEXANDER MACALISTER, F.R.S., M.D., M.A., LL.D., Professor of Anatomy, University of Cambridge; Chairman of the Anatomical Supply Committee.

Representing THE ANATOMICAL SUPPLY COMMITTEE.

SIR DONALD MACALISTER, K.C.B., M.D., M.A., B.Sc., LL.D., Principal and Vice-Chancellur of the University of Glasgow; President of the General Council of Medical Education and Registration of the United Kingdom. Representing THE UNIVERSITY OF GLASGOW AND THE GENERAL MEDICAL

COUNCIL.

J. YULE MACKAY, M.D., LL.D., Principal and Professor of Anatomy, University College, Dundee; Member of General Medical Council.

Representing UNIVERSITY COLLEGE, DUNDEE.

ALEXANDER MACPHAIL, M.B., C.M., F.R.P.&S.G., Lecturer on Anatomy, St. Bartholomew's Hospital; Hon. Secretary to the Anatomical Supply Committee.

Representing THE ANATOMICAL SUPPLY COMMITTEE.

HOWARD MARSH, M.C., M.A., F.R.C.S., Professor of Surgery, University of Cambridge; Master of Downing College, Cambridge.

Representing THE UNIVERSITY OF CAMBRIDGE.

FRANCIS C. MARTLEY, M.D., F.R.C.P.I. Representing THE ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

- SIR HENRY A. MIERS, F.R.S., M.A., D.Sc., Principal of the University of London. Representing THE UNIVERSITY OF LONDON.
- J. RUTHERFORD MORISON, M.B., F.R.C.S., Professor of Surgery, University of Durham.

Representing THE UNIVERSITY OF DURHAM.

SIR BERKELEY G. A. MOYNIHAN, M.S., F.R.C.S., Professor of Clinical Surgery, University of Leeds.

Representing THE UNIVERSITY OF LEEDS.

JAMES MUSGROVE, M.D., F.R.C.S., Bute Professor of Anatomy, University of St. Andrews. Representing THE UNIVERSITY OF ST. ANDREWS.

SIR CHRISTOPHER NIXON, BART., M.D., LL.D., Vice-Chancellor of the National University of Ireland; Member of General Medical Council.

Representing THE NATIONAL UNIVERSITY OF IRELAND.

SIR WILLIAM OSLER, BART., F.R.S., M.D., LL.D., D.Sc., F.R.C.P., Regius Professor of Medicine, University of Oxford. Representing THE UNIVERSITY OF OXFORD.

SIR ISAMBARD OWEN, M.A., M.D., D.C.L., Vice-Chancellor, University of Bristol; Member of General Medical Council. Representing THE UNIVERSITY OF BRISTOL.

F. G. PARSONS, F.R.C.S., Professor of Anatomy, St. Thomas's Hospital; President of the Anatomical Society of Great Britain and Ireland.

Representing

THE ANATOMICAL SOCIETY OF GREAT BRITAIN AND IRELAND.

A. M. PATERSON, M.D., F.R.C.S., Professor of Anatomy, University of Liverpool. Representing THE ANATOMICAL SUPPLY COMMITTEE.

W. B. PATERSON, F.R.C.S., L.D.S., Consulting Dental Surgeon, St. Bartholomew's Hospital. Representing DENTAL SCHOOLS AND BRITISH DENTAL ASSOCIATION.

MAJOR E. M. PILCHER, R.A.M.C., D.S.O., M.B., F.R.C.S., Professor of Military Surgery, Royal Army Medical College. Representing THE ANATOMICAL SUPPLY COMMITTEE.

E. DANCER PUREFOY, M.D., F.R.C.S.I., President of the Royal College of Surgeons in Ireland. Representing THE ROYAL COLLEGE OF SURGEONS IN IRELAND.

R. J. PYE-SMITH, CH.M., F.R.C.S., Emeritus Professor of Surgery, University of Sheffield; Member of the General Medical Council. Representing THE UNIVERSITY OF SHEFFIELD.

ROBERT W. REID, M.D., F.R.C.S., Professor of Anatomy, University of Aberdeen. Representing THE ANATOMICAL SUPPLY COMMITTEE.

ARTHUR ROBINSON, M.D., C.M., Professor of Anatomy, University of Edinburgh.

Representing THE ANATOMICAL SUPPLY COMMITTEE.

THE RT. HON. THE EARL OF SHAFTESBURY, K.P., K.C.V.O., Chancellor of Queen's University, Belfast.

Representing QUEEN'S UNIVERSITY, BELFAST.

COLONEL B. M. SKINNER, R.A.M.C., M.V.O., M.R.C.S., Commandant, Royal Army Medical College. Representing THE ARMY MEDICAL SERVICE.

THE VERY REV. GEORGE ADAM SMITH, D.D., LL.D., LITT.D.,

Principal and Vice-Chancellor of the University of Aberdeen.

Representing THE UNIVERSITY OF ABERDEEN.

JOHNSON SYMINGTON, F.R.S., M.D., F.R.C.S.E., Professor of Anatomy, Queen's University, Belfast.

Representing THE ANATOMICAL SUPPLY COMMITTEE.

W. BRAMLEY TAYLOR, M.R.C.S., L.S.A., Master of the Society of Apothecaries of London.

Representing THE SOCIETY OF APOTHECARIES OF LONDON.

ARTHUR THOMSON, M.B., M.A., F.R.C.S., Professor of Anatomy, University of Oxford, Member of the General Medical Council; President of the Anatomical Section, International Medical Congress, 1913.

Representing THE ANATOMICAL SUPPLY COMMITTEE.

SIR WILLIAM TURNER, K.C.B., M.B., F.R.S., Principal and Vice-Chancellor, the University of Edinburgh.

Representing THE UNIVERSITY OF EDINBURGH.

SIR BERTRAM C. A. WINDLE, M.D., F.R.S., President of University College, Cork.

Representing UNIVERSITY COLLEGE, CORK.

The Deputation was received at the House of Commons on December 11th, 1912, by the RT. HON. REGINALD MCKENNA, M.P., Secretary of State for Home Affairs, accompanied by the RT. HON. T. MCKINNON WOOD, M.P., Secretary for Scotland, and the RT. HON. J. A. PEASE, M.P., President of the Board of Education.

DR. CHRISTOPHER ADDISON, M.P., in introducing the Deputation, referred to his personal experience of the urgency of the question, and of the grave need for some form of legislation more effective than the existing Anatomy Act.

The speakers who followed gave a full exposition of the claims of Anatomy, Operative Surgery, His Majesty's Medical Services, and Medical Education in general.

PROFESSOR ALEXANDER MACALISTER, F.R.S., Professor of Anatomy in the University of Cambridge and Chairman of the Anatomical Supply Committee, expressed regret at the enforced absence of PRINCIPAL SIR WM. TURNER, K.C.B., F.R.S., who had been chosen, jointly with himself, to represent *Anatomy*, and read a letter in which Sir William declared his conviction that unless some action be taken to modify the Act of 1832 the standard of education of the future practitioners of Medicine and Surgery will be lowered and the public will suffer in consequence.

Professor Macalister reviewed the history of the Anatomy Act, the support it received from distinguished members of both Houses of Parliament, and the hope of its sponsors that it would lead to a sufficiency of unclaimed bodies being sent to the Medical Schools for all their needs. He showed that it would certainly have done so had *all* unclaimed bodies been made available, but he pointed out that the manifest purpose of the framers of the Act has been continually frustrated by the apathy, the timidity, or the active hostility of some of the legal custodians on whom rests the responsibility of making full use of the permissive clauses of the Act. He stated that in 1910 the London Poor Law Institutions

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alone reported the number of unclaimed bodies passing through their hands to be 700; of these not more than half were sent to the Medical Schools; he believed that in the rest of the Kingdom the number considerably exceeded 3000, of which less than one-quarter were sent to the Universities and Medical Schools of the Provinces, of Scotland and of Ireland. He alluded to another factor which had reacted against the sufficiency of the supply in many places. For some time after the Act was passed a small fee was paid to those officials by whose instrumentality the bodies were sent; the stringent legislation against bribes and secret commissions has very properly stopped these and it has thereby quenched the zeal of those officials to whom they were sources of profit, and it is to be feared that in some places these officials stand in the way of the supply. He felt sure that until the legal possession of the unclaimed body is transferred to the Department which at present inspects and supervises anatomical teaching, it will never be satisfactory.

SIR RICKMAN J. GODLEE, BART., M.S., President of the Royal College of Surgeons of England, speaking on behalf of *Operative Surgery*, declared it to be impossible to conduct classes in this very important subject satisfactorily at the present time through lack of material, and pointed out how teachers of Operative Surgery in this country are handicapped in gaining world-wide reputation as compared with American and Continental Surgeons, who enjoy an adequate supply both for exposition and for research.

SIR ALFRED PEARCE GOULD, K.C.V.O., M.S., Dean of the Faculty of Medicine, University of London, explained the serious extent to which the work of the various Examining Boards is hampered in the same way, owing to which it is becoming impossible to maintain that high standard of examination tests to which the medical profession attaches so much importance and from which the public derive so much benefit.

SIR THOMAS BARLOW, BART., K.C.V.O., M.D., President of the Royal College of Physicians, London, spoke of Anatomy as the most important fundamental subject in the Medical Curriculum, necessary for the life-long practice of Medicine, imperative if a man is to fulfil his duty as a doctor. He described the inadequate and precarious opportunities which are now offered for practical dissection as a matter of real anxiety for the public welfare.

COLONEL B. M. SKINNER, M.V.O., R.A.M.C., Commandant of the Royal Army Medical College, described the deplorable deficiency of supply experienced by His Majesty's Naval and Army Medical Services and the Indian Medical Service in carrying on their Instruction and Examination Courses. After remarking that the pity of it is that the material is available if only the machinery to provide it were in existence, Col. Skinner thus concluded: "I wish to say that it is a matter of national importance that our Navy and Army Medical Officers should be properly trained in operative procedure by learning on dead bodies how to approach the living, in order that soldiers and sailors may receive that treatment in peace to which they are entitled, and which, in a vast number of instances, leads to their becoming physically efficient again. Above all should they receive that skilled treatment in war, when they are stricken while carrying out a patriotic call. I venture to represent, therefore, that the provision of means to this end is a national duty, conducing to efficiency in public servants, and thereby to economy and conservation of life and limb."

SIR DONALD MACALISTER, K.C.B., M.D., Principal and Vice-Chancellor of the University of Glasgow and President of the General Medical Council, first called attention to the fact

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that in Scotland it has been found possible, in the Police Acts of Edinburgh and of Glasgow, to make an important supplemental improvement, by legislation, in the local operation of the Anatomy Act. He next pointed out that the duties imposed on the General Medical Council by Statute include the supervision of medical education in order that the public may have a guarantee that medical men on the Register are proficient in their work. He wished to emphasise the point that if the Privy Council were dissatisfied with the standard of medical training and testing it could step in and maintain that standard itself. "The Anatomy Acts Committee" of the General Medical Council had made many efforts, in response to repeated appeals, to secure better facilities through the existing machinery of the Act of 1832; it cannot be expected to do more than it has done, and the time has come when the General Medical Council may have to say that it cannot guarantee this part of the training and testing which is so necessary for efficiency and safety. He would suggest that it should be declared by law—by an Order in Council if that were sufficient—that in the case of deceased persons who have no known relatives and who are to be buried at the public expense, the Secretary of State for Home Affairs should be the person having legal possession of the body.

THE VERY REVEREND GEORGE ADAM SMITH, D.D., Principal and Vice-Chancellor of the University of Aberdeen, spoke in the name of those responsible for the general administration of the Universities. In his own experience as member of a large University he had met with no need which affects more departments, or which causes more frequent anxiety to the authorities, than the diminishing and altogether unreliable supply of material for the classes of Anatomy and Operative Surgery. After first paying a high tribute to the ability of the men entrusted with the teaching of these subjects and their fine feeling for the delicacy and sacredness of the work, and then deploring their distractions and frequent exasperating waste of time in trying to find the material they need, he based the appeal of the Deputation —that His Majesty's Government should take the matter into their own hands—on the strongest grounds, that it is in the interests of the nation, and especially of the poor of the nation, a cause which is in the best sense of the words at once popular and sacred.

THE SECRETARY OF STATE FOR HOME AFFAIRS said that he was deeply impressed by the presence of a Deputation literally and truly unparalleled and unprecedented, and that the attendance of so large a body of distinguished men betokened that this subject must be dealt with in an adequate manner. No one could listen to the speeches just made without feeling that their argument is unanswerable. He did not think it would be possible to get the House of Commons to agree to clauses such as had been quoted from the Edinburgh and Glasgow Private Acts. So convinced was he that it is essential in the interests of Medicine and Surgery that an adequate supply of anatomical material should be provided that a Bill might have to be attempted that would make the Home Secretary or some other authority the legal custodian of the unclaimed dead; but the attempt to pass such a Bill might not only fail, but it might have disastrous effects upon the operation of the existing law, by raising a great deal of feeling on the part of Boards of Guardians, and making them still more unwilling to fulfil the permissive clause of the Act of 1832 than they now are. Therefore a frontal attack might not, for the time being, be the best method of obtaining the object desired.

He suggested that the Anatomical Supply Committee which had organised the Deputation should remain in being and should confer with the various Ministers concerned as to what steps might be taken, in the first place, to get rid of the timidity, apathy or hostility referred to in the Report of that Committee. It had been suggested to him, and he thought with some force, that if the Home Office and the Local Government Board could co-operate by bringing home to the minds of the Boards of Guardians the real necessity for their taking advantage of the existing law, something might be achieved.

If it was found in practice that this step proved ineffective, then he frankly saw no course for it but to take legislative steps with all their risks. He assured the Deputation that he would personally undertake to do everything in his power to meet their views, and if he found his efforts inoperative or ineffective then he would see what he could do to persuade his colleagues in the Cabinet to undertake the risks of a Bill.

DR. ADDISON having expressed the thanks of the Deputation to the Secretary of State for Home Affairs and the other Ministers for receiving them, the Deputation then withdrew.

IV. CONFERENCE AT THE HOME OFFICE.

THE Chairman of the Anatomical Supply Committee having been asked by the Home Secretary to nominate a small delegacy to meet representatives of the various Government Departments concerned, a Conference took place at the Home Office on March 5th, 1913, between Professor Macalister, Professor Arthur Thomson, Professor Parsons, Mr. McAdam Eccles and Mr. Alex. Macphail, of that Committee, and Sir Wm. Byrne, Mr. Eagleston, Sir Wm. Bennett and Mr. Pick, of the Home Office, Sir Arthur Downes, of the Local Government Board, Sir George Newman, of the Board of Education, and Mr. P. J. G. Rose, of the Scottish Office. Sir Wm. Byrne presided, and intimated that the Irish Government had forwarded a memorandum and had expressed a wish to be informed of the views of the Conference, but did not think it necessary to send a representative.

The Conference discussed the possibility of securing an adequate supply of unclaimed bodies by bringing pressure to bear on Boards of Guardians, Workhouse Masters and Asylum Boards by—

- (a) the Government issuing a Memorandum to Poor Law Authorities and newspapers emphasising the necessity of an adequate supply for medical education and research;
- (b) a Government official accompanying the teachers when applying to Poor Law Authorities for unclaimed bodies;
- (c) the formation of Committees to deal with the question in each locality;
- (d) the provision of an official fee to the Workhouse Masters responsible for sending the certificate to the Inspector of Anatomy.

The Conference agreed that little could be hoped for, as far as all parts of the country are concerned, on the lines of the first three suggestions, though these might lead to improvement in some localities. There was general approval of the proposed fee.

Sir Wm. Byrne stated that he would communicate the suggestions discussed at the Conference to the Secretary of State, and would speak to the various Government Departments and let the Anatomical Supply Committee know what suggestions are held to be practicable before a decision is come to.

V. THE PRESENT POSITION.

THE Conference, held in March, 1913, led to no practical result. The Anatomical Supply Committee kept in touch with the Home Office until, about a year later, Sir William Byrne left that Office to take over new duties in Ireland; it was then informed that no representative of the Government had been appointed to attend to the matter in his place.

The outbreak of war in August, 1914, led to the question of anatomical supply falling still further into abeyance. Though nearly two years had elapsed since the Secretary of State for Home Affairs had given his pledge to the deputation at the House of Commons, the Anatomical Supply Committee could not then continue to press the matter on a Government suddenly laden with tremendous problems and responsibilities.

Also, many of the students of medicine were mobilized in August, 1914, as combatant Territorial Officers, and many more gave up their studies to volunteer for active service in His Majesty's Forces from that time onwards, so that for two or three years the inadequacy of supply was not so seriously felt in the Schools. Indeed, it was actually found necessary, in some places, to close sources of supply for a time.

With the threatened shortage of medical officers in the later years of the war, and the return of many of the senior students to complete their studies, the difficulties once more began to become acute.

The Anatomical Supply Committee again applied to the Home Office for help, and was referred from there to Sir George Newman, of the Board of Education one of the medical officers who had taken part in the Conference in 1913. Sir George Newman was in favour of transferring the administration of the Anatomy Act to the Board of Education, as that Ministry is now closely concerned in medical education, and the allocation of such grants to Universities and Medical Schools as must largely fail in their purpose if an adequate supply of anatomical material is not available for medical education and research.

The Armistice, and the subsequent changes in His Majesty's Government, led to the Anatomical Supply Committee holding a meeting, on February 8th of this year, to reconsider the whole position.

The number of medical students in all parts of the country is now greatly increased, and the inadequacy of supply is greater than ever. The Committee is

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convinced that nothing short of an amendment of the Anatomy Act of 1832 will surmount this great barrier to medical education and research. The Committee resolved to draw up this memorandum for the information of the Prime Minister, the Secretary of State for Home Affairs, the Secretary for Scotland, the President of the Local Government Board, and the President of the Board of Education. The Committee recommend to His Majesty's Government that, in the formation of the proposed Ministry of Health, among the powers and duties to be transferred to the Minister and to the Scottish Board of Health shall be that of supervising the administration of the Anatomy Act of 1832, at the same time expressing the hope that it may be considered advisable, in relation to a matter so emphatically affecting the health of the people, to amend that Act in such a way that it may indeed effect the purpose for which it was framed.

ADLARD AND SON AND WEST NEWMAN, LTD., LONDON AND BORKING.

Ministry of Health (Anatomy Acts, Transfer of Powers) Order.

Stage.

Instruction by the Minister of Health.to arrange for transfer as soon as possible.

Letter informing Home Office that Order in Council effect-. ing transfer is being prepared.

Autumn Session opened.

Notice of draft order published in London Gazette.

Draft order presented to House of Commons.

Draft order approved by House of Commons.

Expiration of 30 days from date of presentation to House of Commons.

Draft order presented to House of Lords.

Draft order approved by House of Lords.

Expiration of 30 days from date of presentation to House of Lords.

Draft order presented a second time to House of Lords.

Expiration of 30 days from date of presentation to House of Lords.

Draft order approved by the King in Council.

Order in Council published in London Gazette.

Date on which the order took effect.

Date.

PPENDIX

22nd September, 1919.

29th September, 1919.

22nd October, 1919.

4th November, 1919.

4th November, 1919.

19th November, 1919.

16th December, 1919.

4th November, 1919.

18th November, 1919.

Parliament was prorogued before the period of 30 days expired.

10th February, 1920.

29th April, 1920.

17th May, 1920.

21st May, 1920.

17th May, 1920.

APPENDIX X

CONFIDENTIAL.

A bra

Notes on the Remarks of the Ministry of Health to the Anatomy Supply Committee Deputation on Wednesday, 26th November, 1919.

Dr. Addison, in welcoming the Deputation and thanking the various speakers, said he fully appreciated the importance of the subject and realised the gravity of the present deplorable state of supply. He pointed out that the Order in Council transferring the administration of the Anatomy Act to his office had still to be before the House of Lords for ten days or so, longer. Till then it would not be expedient for him to appear personally in any steps that might be taken to improve the administration of the Act.

When the transference is complete, it will still be impossible for him, by Order in Council or any other method, in any way to go beyond the existing powers of the Act. So, in the first instance, he had had exhaustive enquinties made as to the actual number of unclaimed bodies which might be available for the Schools under the provisions of the existing Act. He recited a number of figures and percentage calculations which showed that that number is ample to provide the adequate supply which the Committee had defined it its first Report. The number available would in fact satisfy the proportion of one and a half subjects per medical student, for all purposes.

In the meantime, pending the introduction of a new Poor Law Bill - which he thought was not likely to come forward under a year's time from now - he proposed to insugurate a systematic approach to the legal custodians of these unclaimed bodies, by circular or visitation or collective interview, under the personal supervision of accredited officers of the Ministry.

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Should these means fail to secure an adequate supply, then he quite sympathised with the views of the Deputation that legislation, on the lines they had just suggested, must be tried and he was quite prepared to consult his legal advisers as to introducing the necessary Clause into a New Bill and was quite prepared to explain quite frankly to the House what it is for. He alluded to some of the dangers attending such a course of antion but assured the Deputation that he would do all that he could to secure proper facilities for teaching and research in Anatomy and Operative Surgery.

Referring to the point which had been raised regarding the introduction of a notification fee he quite agreed that this would probably facilitate supply, in the metropolitan area at any rate, and promised to give the matter careful consideration; and in reply to a question regarding joint action on the part of the Scottish Board of Health, should new legislation be proposed, he anticipated no difficulty in making amicable working arrangements with the Scoretary for Scorland for joint action on similar lines.

2.

MINISTRY OF HEALTH.

(issued and dated at the discretion of medical Officer)

ENDIX

SIR, I DESIRE to bring to the notice of your Board the transference of the administration of the Anatomy Act from the Home Office to this Ministry, as a matter deeply affecting, through the provision of properly trained medical men, the health and wellbeing of the country. It will be readily appreciated that a thoroughly practical training is essential to provide doctors with the knowledge and skill necessary for the proper treatment of the sick and maimed, and that medical students should be given the opportunity, *first*, of learning the whole complex structure of the human frame which their patients are to entrust to their care, and, *second*, of acquiring the delicate technique without which they should neither be expected to approach the investigation of an obscure disease nor to dare to operate on the living.

Since 1832, when the Act was passed, Boards of Guardians in all the University centres of England and Wales have been helping the medical schools by placing at their disposal, for anatomical examination and subsequent burial according to the strict requirements of the Act, the bodies of persons in their charge who have died without known relatives to claim them. In recent years, however, the number of unclaimed has been steadily declining while the number of medical students has greatly increased, with the result that every student of medicine has at best only very limited opportunities of learning anatomy, and still less of acquiring the technique of surgical operations on the dead. The consequence of a continued shortage in the supply must be that doctors in future will have no alternative but to treat disease and undertake operations in the attempt to save lives without being properly qualified to do so, through no fault of their own.

For these reasons, on the urgent appeal of the authorities of the medical schools, I invite the assistance of all Boards of Guardians throughout England and Wales, knowing that with their help the number of unclaimed will prove sufficient, and believing that the utilisation of such bodies is the method least likely to affect in any way the sentiments of living people. If it should be found that the minds of any persons for whom Boards of Guardians are responsible have been made uneasy by the fear that their bodies might be used in this way against their wish, complete protection is provided for such in Clause VII. of the Act, a copy of which is always enclosed with the necessary forms and certificates issued by H.M. Inspector of Anatomy to the responsible officers of Unions which give their consent.

The antipathy felt by some to the idea of using the bodies of the dead in this way is readily understood and is worthy of all respect, but as it is often based on misapprehensions which have gathered round the practice of anatomy in past years a brief summary of the actual procedure may not be out of place :—

The body is taken from the institution to the medical school by an undertaker on the instructions of H.M. Inspector of Anatomy, the Government official who is responsible for its being preserved in approved premises and for its remaining under the personal charge of a Licensed Teacher of Anatomy, who is always a distinguished medical graduate. The embalming of the body occupies a period of about three weeks, at any time during which it can be returned immediately to the institution if required. After anatomical investigation it is removed in a coffin by the undertaker, who completes the funeral as in the case of an ordinary burial according to the rites of the religious persuasion of the deceased. The entire expense of the removal and burial is borne by the authorities of the Medical Schools. A certificate, signed by the chaplain and officials of the cemetery, is sent to H.M. Inspector of Anatomy, who keeps a full record of the name, age, number of grave of the deceased, the name of the clergyman who performed the burial ceremony, and the date of burial. A notice, conveying this information in full, is then sent to the institution which has placed the body at the disposal of the Ministry. Consequently if at any future time friends of the deceased should make enquiries, full particulars as to burial can at once be supplied.

I trust that Guardians will give their earnest consideration to this question, which vitally affects the future of medical education and ultimately the efficiency of all forms of medical treatment, and will be willing to co-operate with the Ministry to this end.

I am, Sir, MpMmg Your obedient Servant, (Jo Clevks of Twardians) elà.

O (78)15100 Wt 7815-1592A 2000 6/21 E & S

APPENDIX XII

THE BOARD OF CONTROL, 66, Victoria Street, S.W.l.

16th August, 1920.

CONFIDENTIAL.

Sir,

re Unclaimed Bodies of Patients dying in County and Borough Asylums.

Representations from various sources have for several months been made to the Board of Control as to the great dearth of material for instructional purposes at Anatomical Departments of Medical Schools; and, while the Teachers in these departments greatly appreciate the assistance given by the authorities of institutions at which a practice is made of sending unclaimed bodies to Medical Schools, they further represent that the value of this assistance is much reduced - if, indeed, not entirely negatived - when a post-mortem examination has been previously made upon the bodies so sent.

The Board have recently received a communication upon the matter from the Minister of Health, to whom the administration of the Anatomy Acts has now been transferred. In it strong emphasis is laid upon the serious position resulting from the large increase in the number of students attending the Medical Schools coupled with an increasing reduction in the number of unclaimed bodies received. The shortage has now reached such a degree as to be a menace to the acquisition by medical men of an adequate knowledge of the human body for the practice of their profession and, should it continue, the General Medical Council may have no alternative but to relax the present standard of anatomical teaching.

It is not necessary to elaborate the grave results which any relaxation of the present standard would entail. The Minister of Health has confidence that the seriousness of the situation will be appreciated and that, as soon as the facts are realised, assistance where possible will be forthcoming.

The Superintendents of a certain number of County and Borough Asylums have for several years, with the knowledge and approval of their respective Visiting Committees, sent unclaimed bodies to one or other of the Medical Schools; and it is felt that, if all such institutions made a practice of so doing, a substantial relief to the seriousness of the position would be afforded. If therefore, this practice is not already adopted at your institution, the Board hope that you will take an early opportunity of bringing the matter before your Committee,

The Medical Superintendent of each County and Borough Asylum.

and/

COPY

and that you will in due course be in a position to see your way to afford the assistance so urgently required.

No body unclaimed by any relative or friend must of course be removed for anatomical investigation until the 48 hours allowed under the Anatomy Acts have elapsed and, while after the lapse of that time any such unclaimed body may at once be notified to the Inspector of Anatomy at the Ministry of Health, great caution should be exercised in so disposing of the body of any patient only comparatively recently admitted, as the Board, and doubtless your Committee and yourself, would deeply regret any event which would stimulate prejudice with respect to institutions for the insane. But, should any relative or friend claim a body within a short time after its removal under the Anatomy Acts, arrangements exist under which it can be immediately returned to the institution for burial or buried direct from the Medical School, whichever course may be preferred; and if a claim should be made at a later date, the relatives can always obtain full information regarding the place and date of burial and the name of the clergyman This information is who conducted the burial service. carefully recorded in the Office of the Inspector of Anatomy, and every care is taken to secure that the burial is conducted according to the rites of the religious persuasion to which the deceased belonged.

With respect to the making of a post-mortem examination on bodies, while the Board in no way abate their belief in the importance of these examinations for both protective and scientific purposes and consider that they should be held in all cases where consent can be obtained, I am to say that they are of opinion that, where there are neither any special medical reasons arising out of the case nor any suspicion as to the existence of injuries, post-mortem examination may properly be omitted on bodies about to be removed under the Anatomy Acts.

> I am, Sir, Your obedient Servant,

> > O.E. DICKINSON.

Secretary.



CONFIDENTIAL.

No. 990.

17177/21 C.

PRISON COMMISSION

HOME OFFICE,

LONDON, S.W. I.

26th October, 1922.

Circular to Local and Convict Prisons.

Representations having been made to the Secretary of State respecting the great dearth of material for instructional purposes at anatomical departments of medical schools, he has directed that the practice in force at many Poor Law Institutions and Asylums of sending the unclaimed bodies of persons dying in those Establishments, to medical schools for the purpose of instruction in anatomy, shall be followed in prisons, except as regards the bodies of executed prisoners.

No body unclaimed by any relative or friend must be removed for anatomical investigation until the 48 hours allowed under the Anatomy Act have elapsed and the coroner's "order for burial" has been given. Great . care should be exercised in so disposing of the body of any prisoner recently admitted and of whom nothing is known, and reasonable steps should be taken to ascertain by enquiry of the Police, that the prisoner had no relatives or friends likely to claim the body. Should, however, any relative or friend claim a body within a short time after its removal under the Anatomy Acts, arrangements exist under which it can be returned immediately to the Institution for burial or buried direct from the Medical School, whichever course may be preferred; and, if a claim should be made at a later date, the relatives can always obtain full information regarding the date and place of burial and the name of the clergyman who conducted the burial service, every care being taken to secure that the burial is conducted according to the rites of the religious persuasion to which the deceased belonged. This information is carefully recorded in the office of the Inspector of Anatomy, and a burial notice, embodying it in full, is issued from the Ministry of Health to the Institution from which the body was received.

The procedure to be followed is set out in the enclosed memorandum and forms. As regards prisons in the provinces, no action in the matter will be taken pending the visit of Dr. Macphail, Inspector of Anatomy, who will explain in more detail the procedure, and arrange as to which University Medical School, bodies from each prison should be sent. The Inspector of Anatomy hopes to visit the metropolitan prisons shortly and the provincial prisons later; the Commissioners desire that he should be afforded every facility.

No body will, of course, be removed until after the Inquest, and if it is likely that 48 hours will elapse before the inquest is held, a note to that effect, stating, if possible, the time and date of the inquest, will be made on form A.A.7 in the case of provincial prisons, and A.A.1 in the case of London prisons. If a post-mortem examination has been made the body will not be required.

A. J. WALL, Secretary.

APPENDIX XIV

LONDON AREA.

Note of the procedure to be followed in placing an unclaimed body at the disposal of the Ministry of Health.

> When an unclaimed body is available at the Institution, Notice to that effect (on Form AAI) should be sent together with the Certificate of Cause of Death (AA4) to

H.M. Inspector of Anatomy

Ministry of Health,

Thitehall, S.W. 1.

who will then arrange to send a Motor Hearse and coffin for the body on the day and at the nour indicated on the above Notice by the Institution. On removal, the Registrar's <u>"Notification of Death"</u> should be given to the Undertaker, who will leave at the same time a receipt for the body on a form supplied to him by this Office. All communications should be marked O.H.M.S. and postage need not be prepaid.

On the subsequent burial of the body the Institution will be furnished from this office with particulars as to place, date, No. of Grave and name of the Clergyman officiating. <u>NOTE</u>. If a body is <u>claimed within a fortnight</u> of its removal a wire sent to the Inspector will secure its immediate return or, if <u>claimed later</u>, its immediate burial followed by the notification thereof to the Institution.

APPENDIX XV

Note of the procedure to be followed in placing an unclaimed body at the disposal of the Ministry of Health.

When an unclaimed body is available at the Institution, NOTICE to that effect (on Form 7) should be sent to the Licensed Teacher of Anatomy at, who will then arrange to send a Motor Hearse and Coffin for the body on the day and at the hour indicated by the Institution. On removal, the Registrar's "NOTIFICATION OF DEATH" and the "MEDICAL CERTIFICATE," required under the Anatomy Acts, should be given to the Undertaker, and at the same time the necessary "NOTICE TO INSPECTOR" should be posted (postage need not be prepaid) to :---

H.M. INSPECTOR OF ANATOMY,

Room 47А./ſ.,

MINISTRY OF HEALTH,

WHITEHALL, S.W.1.

On the subsequent burial of the body the Institution will be furnished from this office with particulars as to place, date, No. of Grave and name of the Clergyman officiating.

NOTE:- If a body is claimed within a fortnight of its removal, a wire sent to the above office will secure its immediate return, or, if claimed later, its immediate burial followed by the A. Botification thereof to the Institution.

(x) (101167) Wt. 22747/838A Gp. 163 1000 10-20 W & S Ltd.

APPENDIX XVI A.A.G

ANATOMY OFFICE,

MINISTRY OF HEALTH,

WHITEHALL, S.W.1,

SIR,

I have to inform you that the body of

.....

.....officiating.

The Certificate of Burial may be seen on application at this Office.

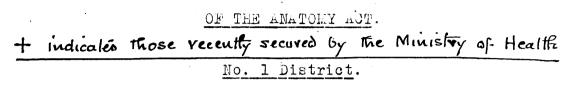
I am, SIR,

Your obedient Servant,

H.M. Inspector of Anatomy.

APPENDIX XV

LIST OF UNIONS CO-OPERATING IN THE ADMINISTRATION



West Ham. Essex.

London.

Bethnal Green Camberwell Chelsea City of London Fulham

- + St. George-in-the-East Greenwich + Hackney
- + Hammersmith
- + Hampstead + Holborn
- Islington Kensington

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- Lambeth + Lewisham
- St. Marylebone + Mile End Old Town
- + Paddington
- + Poplar & STEPNEY SICK ASYLUM St. Pancras Shoreditch Stopnoy
- + Wandsworth City of Westminster Whitechapel Woolwich

Middlesex.

Brentford Edmonton Hendon

Surrey. + Croydon. + Epsom

OF THE ANATOMY ACT.

No. 2 District.

Kent. + Dartford. + BROMLEY Sussex. Brighton + Steyning

OF THE ANATOMY ACT.

No. 3 District.

Berks.

Reading

Oxford.

Oxford

<u>Warwick</u>. Coventry.

OF THE ANATOMY ACT.

No. 4 District.

Bedford.

Bedford Luton Biggleswade

Cambridge.

Cambridge Chesterton H Ely + Newmarket + North Witchford

Herts.

+ Bishop's Stortford

Hunts.

+ Huntingdon

+ Kettering + Northampton + St. Neots

Hitchin

Middlesex.

Northampton.

+ Brentford + HENDON

+ Edmonton

Peterborough + Wellingborough

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OF THE ANATOMY ACT.

No. 5 District.

Essex.

+	Braintree	•	+ Rochford
	Chelmsford		+ Romford
+	Colchester		Tendring
+	Lexden and	Winstree	
	•		

Norfolk.

+	Downham	Mitford and Launditch
+	St. Faith	+ Norwich
+	Kings Lynn	+ Gt. Yarmouth
+	Lodden and	Clavering + Thetford
+	A ylsh am	+ Forehoe
+	Smallburgh	

<u>Suffolk</u>.

+ Bury St. Edmonds + Lowestoft

Mildenhall

		ANATOMY	
¥7		Distant	• - •
NO a	, 7	. Distr	lot.

Devon.

- +
- Devonport. Newton Abbot.

Plymonth. +

n

OF THE ANATOMY ACT .

No.8. District.

Gloucester.

Bristol + Cheltenham + Gloucester.

Stafford.

+ Walsall

+ West Bromwich

+ Wolverhampton

Warwick.

Birmingham - (all Institutions -Selly Oak, Erdington, Dudley Road. + Western Road.)

Wordester.

+ Dudley,

0

OF THE ANATOMY ACT.

No. 9. District.

Chester.

- Birkenhead,

+ Macclesfield,

+ Stockport.

C

OF THE ANATOMY ACT.

No.10 District.

Leicester.

Leicester.

OF THE ANATOMY ACT.

No.11 District.

Lancaster.

- Ashton-under-Lyne + Blackburn + Burnle y + Bury + Haslingden + Lancaster Manchester
- + Oldham

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- + Ormskirk
- + Prescot
- + Preston
- + Rochdale
- Salford
- + Toxteth Park
- + Warrington
 - West Derby
- + Wigan,

OF THE ANATOMY ACT.

No.12 District.

York, West Riding. Leeds Rotherham Sheffield.

OF THE ANATOMY ACT.

No.13 District.

Durham.

Gateshead South Shields Sunderland.

Northumberland.

Newcastle-upon-Tyne Tynemouth.

OF THE ANATOMY ACT.

No. 14 District.

Carmarthen.

+ Llanelly

Glamorgan.

Cardiff - Ely Lodge and City Lodge)

+ Pontypridd.

Monmouth.

- + Abergavenny
- + Newport

+ Pontypool

ADMINISTRATION OF THE ANATOMY ACT.

London.

L.C.C. Institutions.

 Colney Hatch Hanwell Banstead Cane Hill Claybury Bexley Manor, Epsom Horton, " Long Grove, Epsom Evell

Middlesex. (COUNTY)
+ Springfield, Tooting.

City of London.

+ Dartford.

West Ham. (Boro')

+ Goodmayes.

LIST OF MENTAL HOSPITALS CO-OPERATING IN THE ADMINISTRATION

OF THE ANATOMY ACT.

M.A.B. Institutions.

+ Colindale Hospital, Hendon (TUBERCULOSIS) Caterham

Leavesden

Tooting Bec

Darenth

LIST OF H.M. PRISONS CO-OPERATING IN THE

ADMINISTRATION OF THE ANATOMY ACT.

- + Brixton
- + Holloway
- + Pentonville
- + Wandsworth
- + Wormwood Scrubs

ADMINISTRATION OF THE ANATOMY ACT.

Provincial. A. COUNTY.

🕂 Beds, Arlesey	
+ Bucks, Aylesbury	
Cambridge, Fulbourn	
+ Cornwall, Bodmin	
+ Devon, Exminster	
+ Dorset, Dorchester	
+ Durham, Ferryhill	
+ Essex, Brentwood	
+ Glamorgan, Bridgend .	
+ Gloucester, Gloucester	
+ " Barnwood House	
+ Hereford, Burghill	
+Lancaster, Lancaster	
+ " Rainhill	
+ " Prestwich	
+ " Preston	
+ " Warrington +Mid-Wales, Brecon WHALLEY,	RIACHAURN.
+Mid-Wales, Brecon WHALLEY,	DEVERDANCE
+Monmouth, Abergavenny	
+Norfolk, Norwich	
Northampton, Berrywood	
+Northumberland, Morpeth	

ADMINISTRATION OF THE ANATOMY ACT.

Provincial. (COUNTY - CONFINUED) + Notts, Radcliffe-on-Trent + Suffolk, Woodbridge + Sussex, Eastbourne + + " Chichester + Warwick, Hatton + Wilts, Devizes Worcester, Powick 11 Barnsley Hall, York, Wakefield

ADMINISTRATION OF THE ANATOMY ACT.

$\frac{\text{Provincial}}{B, BOROUGH}$

Birmingham, Winson Green H "Rubery Hill Bristol, Fishponds + Cardiff, Whitchurch + Croydon, Warlingham + Exeter, Heavitree Gateshead, Stannington + Ipswich, Ipswich + Newcastle, Gosforth + Newport, Caerleon + Norwich, Hellesdon + Plymouth, Ivybridge LIST OF CRIMINAL LUNATIC ASYLUMS CO-OPERATING IN THE

ADMINISTRATION OF THE ANATOMY ACT.

- + Broadmoor Crowthorne, Berks.
 - + Rampton Retford, Notte.

LIST OF H. M. PRISONS CO-OPERATING IN THE ADMINISTRATION OF THE ANATOMY ACT

LONDON AREA

BRIXTON HOLLOWAY PENTONVILLE WANDSWORTH WORMWOOD SCRUBBS

PROVINCIAL AREA

BRISTOL LIVERPOOL.