

supposes), as only two copies of the dissertation exist—one in the archives of the Society and the other in my own hands. Like him, however, I shall take for my text the quotation he gives from my evidence in the Blue Book as follows:—"In fact, my theory did away with the necessity of muscles of inspiration. I denied the action of them as they stood." Passing on to each of the statements which follow, I have, in the first place, to deny that I ever explained to any one in the College of France my theory of the action of the so-called muscles of inspiration. Consequently, I have to deny, in the second place, that anyone there "tried by reasoning to demonstrate to me its falsity". Thirdly, I deny that I was conducted to the laboratory of M. Cl. Bernard to be convinced by experiment. And, fourthly, I beg to state that the experiment said to have been "made in my presence without anaesthetics", and "following my directions", during which "the animal died at once, its lungs collapsed, as soon as the respiratory muscles, said by Dr. Hoggan to be useless, were divided", is purely and wholly imaginary. As all M. Vignal's statements and questions turn on this point, I shall endeavour to be even more explicit by stating that never, to my knowledge, in my presence, or by my directions, was ever any vivisectional experiment performed upon any animal, with or without anaesthetics, in Paris or anywhere else, in connection with any part or detail of my theory of inspiration. Nay, further, amongst all the experiments I have witnessed, I have never yet seen the diaphragm while it acted in any living animal, being in this far behind the young ladies at Girton, who, according to an official circular issued by the College and now before me, are shown that interesting vivisection in Professor Foster's class of physiology.

After making such statements, it would be useless repetition to reply *seriatim* to M. Vignal's questions; but I enclose that answer should it appear in your judgment to be necessary. I might, however, add, with reference to the latter part of his third question, that, had the imaginary experiment really taken place, I should not have been allowed to describe it before the Commission, unless (which would be impossible) I could have accompanied it with a published reference. I can assure M. Vignal that I carried before the Commission a great written budget of what, in the language of the day, would be called atrocities which I myself had witnessed; but, whenever I entered upon it, I was stopped by a protest from Professor Huxley to the chairman against any testimony being received as to what had taken place abroad, unless a published reference could also be produced as a voucher.

It would seem that M. Vignal has confounded my views in respect of the muscles of inspiration with my theory On the Eretille Action of the Blood-pressure in Inspiration, and its Important Agency in the Various Functions of Life, under which title I wrote an article published in the *Edinburgh Medical Journal* for October 1872, and presented a copy to Professor Ranvier when, by his great kindness, I worked under him in the College of France. Some time afterwards, that gentleman, knowing my wish to learn experimental physiology, kindly introduced me to Professor Bernard, with a request that I might be allowed to assist (*aider*) him in his laboratory, and, at the same time, handed him another copy of the article in question; but there was never any discussion or any experiment even on this part of my theory, and, indeed, I confess that my little vanity felt somewhat wounded by the fact that, after receiving the article, M. Bernard never again alluded to the subject.

The arguments with which I opposed the idea of muscles of inspiration were based upon anatomical facts and physiological movements laid down as mathematical problems. They were such as could be tested by every man upon his own body, from which he was certain to receive a clearer answer than he could expect to get from any tortured animal. In this way, taking, for example, the diaphragm, one of the least unassailable of the so-called muscles of inspiration, I showed that neither by itself nor in conjunction with the thoracic muscles, did it act in inspiration; and the stock argument derived from its action in maintaining respiration after injury of the spinal cord below the origin of the phrenic nerve I showed not only to be untenable, but only comprehensible when my heretical theory was applied to it. Those arguments have never been answered, and, until they are answered, I shall denounce any experiments on animals in connection with them, even under the influence of anaesthetics.

Although my little experience prevents me from admitting that vivisection is always either useless or cruel, I object to the one imagined by M. Vignal, because it was both: and he must pardon me when I say that it is neither consistent with my knowledge of or respect for the skill of the physiologist referred to, that knowing (as supposed) my theory he should ever have planned so grossly ignorant an experiment, or have been either surprised or convinced by the result obtained. To "sever the respiratory muscles" referred to, simply means that the

whole trunk was cut to pieces; and who can wonder that the poor mangled brute "without anaesthetics" sank under such treatment? The lungs would certainly collapse when the thorax was opened, not (as explained in my dissertation) that they have any connection whatever with the so-called muscles of inspiration, but because the contractile elements of which they are largely composed would contract on exposure to the air.

I regret, sir, that I cannot further intrude upon your space with the details of my theory of inspiration, but I hope I have said enough to prevent M. Vignal from commencing any more of his characteristic experiments before he has mastered the preliminary facts.—I have the honour to be, sir, your obedient servant,
GEORGE HOGGAN.
7, Trevor Terrace, Rutland Gate, S.W., July 13th, 1877.

OBITUARY.

ROBERT GEORGE BOULTON, M.D. AND J.P.

DR. BOULTON died of renal calculus, on July 12th, at his residence in Beverley, Yorkshire, having just passed his seventy-second birthday.

He was educated at Edinburgh, and afterwards settled in Beverley, where he held a leading position, both professional and social, for forty-seven years. He was a magistrate for the borough, a staunch churchman and conservative.

He married Ann, second daughter of the Rev. H. R. Whytehead of Thormanby and Creyke, Yorkshire, by whom he had twelve children, nine of whom survive. He has two sons in the medical profession; William Whytehead, who succeeds to the Beverley practice; and Dr. Percy Boulton, who has chosen a wider sphere in London.

Dr. Boulton was an able practitioner. He attended and kept accurate records of over three thousand cases of midwifery, with an extraordinary low maternal mortality. He was fond of his gun, and was a fine example of a manly country-gentleman type of practitioner. The rich and the poor alike have lost in him a kind, sympathetic, and trusted friend.

W. BATHURST WOODMAN, M.D., F.R.C.P.

THE subject of this notice, whose decease, at the early age of forty-one, we had to chronicle with the greatest regret in a late number, was the son of a congregational minister at Cadenham, in the parish of Minested, New Forest. He entered as a student at the London Hospital, and held almost all the appointments open to the alumni. As house-surgeon, resident accoucheur, and resident medical officer, the manner in which he devoted himself to his duties was such as to command the warmest acknowledgments from lay and medical staff. During the cholera epidemic of 1866-7, he was medical superintendent of the Limehouse Hospital, and contributed an account of work done there to the third volume of the *London Hospital Reports*. He subsequently became an Examiner at the Apothecaries' Hall; Examining Physician to the London Orphan Asylum and British Home for Incurables; and Physician to the North-Eastern Hospital for Children. He was a frequent contributor to the *Medical Times and Gazette*, *London Medical Record*, etc. He translated and edited Wunderlich's *Medical Thermometry* for the New Sydenham Society, and contributed a paper on Chorea and Pregnancy to the *Obstetrical Society's Transactions*. In conjunction with Dr. Tidy, he furnished a communication to the Royal Society on "Ammonia in the Urine", which was published in their *Proceedings*. In 1861, he became M.R.C.S. and a L.S.A. In 1862, he graduated with honours as M.D. at St. Andrew's, and in 1876 he was elected a Fellow of the Royal College of Physicians of London.

In 1870, Dr. Woodman was appointed one of the assistant-physicians at the London Hospital, and early in the present year he became Physician, after seven years' service. His work here was in many respects remarkable. For hours, apparently without the slightest fatigue, he would sit and see the out-patients. The many students who attended his practice can testify that if he lacked the brilliant rapidity of some, he bestowed on each case that extreme caution and earnest painstaking attention which rendered his opinion valuable and his teaching sound. As a lecturer on physiology, the chair of which he held for some years at the medical school, his lectures were remarkable for the wide range of knowledge they exhibited, and the mass of facts, culled for the most part from the works of foreign physiologists, with which he burdened them. Here, indeed, was his failing as a lecturer; he knew much, and was unable to measure the amount a student needed.

In private practice, his ultimate success all prophesied as certain. He had passed the first great struggle, and it was but a work of time

for him to reap the reward of laborious reading and careful clinical observation. The last few years of his life had been mainly devoted to preparing, conjointly with Dr. Tidy, a *Manual of Forensic Medicine*. His devotion to the subject-matter of the work was untiring; every book and every pamphlet, English and foreign, bearing in the least degree on legal medicine was gone through; and the labour he bestowed upon it few can imagine.

He was emphatically a learned man. To a more than average acquaintance with dead languages, he added a critical knowledge of French, German, and Italian.

As regards his private character, no words can sufficiently express his generosity, his kindness of heart, and absolute unselfishness. No poor person asked for advice or relief from him in vain. He considered nothing a trouble that he did for others; he considered no return too great for any little favour another did for him. Not a few will feel that they have lost in him one who in the strictest sense was a friend, that feeling of loss being intensified by the sad circumstances which closed a career of great promise.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE CROYDON BOARD OF HEALTH AND INFECTIOUS DISEASES.

SIR,—“A Medical Officer of Health” calls in question the course I have taken in the matter of additional infectious wards for the district of Croydon. He expresses an opinion that my action is “a mischievous and a retrograde one”. With your permission, I will explain the position I have taken and will state the reasons which have brought down upon me the condemnation of your correspondent.

I have always urged upon the proper authority the necessity of providing isolated hospitals for the treatment of infectious disorders. The destitution authority have already provided one such building in the district, which is supervised by the Croydon Local Board of Health. When power was given to health authorities to provide similar accommodation, I at once moved the Local Board to urge upon the Board of Guardians the necessity for making sufficient provision for such cases within their district; and I stated that one building was not sufficient. I pointed out also to the Board of Guardians that, whilst their present infectious wards were admirably fitted for the treatment of one kind of infectious disease, they could not deal with two, such as typhus and small-pox, at the same time. I urged, therefore, that they should duplicate their present buildings, by erecting another set upon land which they have already available for the purpose; that their staff would require additions of inferior officers only to work both buildings; and that the duplicate set would afford ample accommodation for the district for a long time to come; that, if it became necessary at any time for the Local Board to send in non-pauper patients, they would be prepared to pay all expenses which would be incurred in attending upon and treating such cases. To this proposition the Board of Guardians unanimously and willingly agreed. Their architect was instructed to prepare, and did prepare, plans for another set of buildings similar in character to the present infectious wards. Contracts for the erection of the building were invited, and everything was in order, by means of which Croydon would have been amply provided for the isolation of disease. But the Local Government Board stepped in and informed the Guardians that the proposed arrangement would not be allowed: it was contrary to the policy of the Local Government Board to allow the two boards to act in harmony; and, whilst unable to deny that the present infectious wards are not sufficient for the district, and agreeing that it is necessary to have a second set built, they also call upon the health authority to provide distinct hospitals for non-pauper cases.

Now, sir, I hold that, however wise it may be to have abundance of accommodation for the treatment of infectious diseases, there are limits beyond which common sense as well as the all-powerful ratepayer will not proceed; that to provide shams for the treatment of infectious disease would be worse than useless; that two distinct blocks, making up fifty-six beds in four compartments, are ample accommodation for this district, if efficient; and that it has been agreed to duplicate the twenty-eight already existing. The destitution authority has an efficient staff and an able superintendent, whilst the health authority has nothing of the kind. The sites are secured, by means of which the foci of disease will be limited. If the Local Board of Health were compelled to find sites for two fresh infectious wards, they would have to incur enormous expenses, or else provide a sham. We have so many shams already, in the supervision of health by destitution authorities, and by the impediments placed in the way of healthy progress by the Local Government Board, that it is high time to try to bring about a change. I am of opinion that the principles of legislation, as promoted by the Local Government Board, are altogether wrong. We are breeding up among us a class of persons who are paupers from their cradles to their graves. They are treated as if they were not of the same family as ourselves, and that feeling is to be inculcated more strongly by preventing the ingress of any but those in the service of the Board into the wards of their hospitals. I believe the introduction of non-pauper cases for treatment in the hospitals designed for the poor is a step in the right direction, and is likely to be followed by benefit, not injury, to the poor themselves; but that to call upon the Croydon Local Board of Health to provide further accommodation for the isolation of disease when the district is already sufficiently provided for, is a waste of public money: an injury instead of a benefit.

The zeal of the Local Government Board is sadly wanted in another direction. In the autumn of 1875, Dr. Buchanan was sent down to inquire as to the causes of the epidemic of fever which assailed us in the spring and summer of that year. He reported that one of the causes of the disease was the defective state of many of the sewers. The Croydon Local Board applied for power to borrow £15,000 to remedy the defects. The application was made to the Local Government Board more than a year ago, and we have not yet received authority to proceed to remedy those defects which still tend to produce disease among us; but we are called upon to proceed to an enormous expenditure which we believe to be altogether unnecessary

and which will not be used if we go to the fountain-head as to the causation of disease. Let us remove these causes first, and if then it be found that the present allowance of fifty-six beds is not sufficient for the isolation of infectious disease, it will be time enough to call upon us to provide more; or, still better, transfer to the health authority the treatment of the sick poor altogether.

Whilst the spirit which existed in the old Poor-law Board, and which has snuffed out Mr. Simon, reigns at the Local Government Board, there is but little chance of correct legislation there.—I am, sir, your obedient servant,
Croydon, July 9th, 1877.

ALFRED CARPENTER, M.D., C.S.S.Camb.

FEES FOR OPERATIONS.

The following letter has been handed to us for publication.

“Local Government Board, Whitehall, S.W., July 17th, 1877.
“Sir,—I am directed by the Local Government Board to state that they have had under their consideration the grounds stated in your letter of the 10th of May last, upon which the Council of the Poor-law Medical Officers' Association base their application for the issue of a general order fixing the remuneration of medical practitioners called in to assist Poor-law medical officers in performing capital operations. The Board have very carefully considered the representations contained in your letter; but, as at present advised, they do not think that sufficient reasons have been adduced to render it expedient to alter the existing regulations on the subject.

“The circumstances connected with each of the capital operations referred to in your letter are in practice so different as to render it impossible to lay down a fixed scale of remuneration, such as would be just alike to the medical practitioner and to the ratepayer. Moreover, the Board consider that it would be undesirable to encourage the performance in the dwellings of the poor of such serious operations, sometimes involving danger to life, as those referred to. When operations of this nature are performed at the paupers' houses, neither the constant care and nursing, nor the means and appliances for carrying the operation to a successful issue, can as a general rule be provided.

“For the comparatively few exceptional cases in which it is absolutely necessary for the district medical officers to perform capital operations, and for the right means of dealing with such grave contingencies, the law and the regulations of the Board, as has been already pointed out, appear to make sufficient provision.—I am, sir, your obedient servant,

(Signed) HUGH OWEN, Jun., Assistant-Secretary.

“To J. W. Barnes, Esq., F.R.C.S., Hon. Secretary to the Poor-law Medical Officers' Association, 3, Bolt Court, Fleet Street, E.C.”

DUTIES OF WORKHOUSE MEDICAL OFFICERS.

SIR,—The guardians of a large workhouse, the medical work of which is discharged by two resident officers, have passed a resolution to the effect that, besides carrying out the Consolidated Order, Article 207, the medical officers be directed to visit all sick cases (which include cases of itch, venereal disease, and others of a chronic nature) received at the workhouse within one hour of their being removed to their respective wards. Can you tell me whether the guardians have power to enforce such a rule, involving, as it does, a large amount of absolutely unnecessary attendance? See Glen's *Poor-law Board Orders* for Article 207, which ought to be read in connection with Article 154.—Yours, etc.,
X. Y. Z.

July 11th, 1877.

* * * Having regard to the very stringent regulations laid down in the articles referred to in our correspondent's letter, we are of opinion that the resolution of the guardians is wholly unnecessary, and calculated to give needless trouble. We should imagine that it has been come to in ignorance of the tenour of the general orders, upon which it should have been the duty of the clerk to enlighten the guardians. We further believe that the Central Board would not support the guardians in their apparent attempt to unduly harass their officers; if, therefore, after respectful remonstrance, the resolution be insisted on, we would advise our correspondent to lay the facts before the Central Authority.

POOR-LAW MEDICAL APPOINTMENTS.

DRING, W. Ernest, M.D., appointed Medical Officer and Public Vaccinator of the Third Division of the Faversham Union, *vice* R. S. Francis, Esq., resigned.

PUBLIC HEALTH MEDICAL APPOINTMENTS.

DRING, W. Ernest, M.D., appointed Medical Officer of Health of the Third Division of the Faversham Union, *vice* R. S. Francis, Esq., resigned.

The Town Council of Chatham have been appointed the Port Sanitary Authority for Chatham and Rochester.

SUPERANNUATION.—The Board of Guardians of the Uckfield Union have awarded to Mr. G. Holman, for his long services of forty-two years, the sum of £50 *per annum*.

MILITARY AND NAVAL MEDICAL SERVICES.

The appointment of Senior Civil Medical Officer in the Straits Settlements has fallen vacant by the death of Surgeon-Major Henry Lloyd Randell, on June 22nd, at Singapore. The deceased, who had taken an active part in the suppression of the late Malay revolt on the Perak River, when he was seriously wounded, joined the service as an assistant-surgeon in January 1855, and served with the 62nd Regiment in the Crimea from July 1855, taking part in the siege and fall of Sebastopol, and the assault of the Redan on the 8th September. He served afterwards with the Royal Engineers and Royal Artillery, and had been medical officer in the Straits Settlements for the last ten years.