

German Sims Woodhead

K.B.E., M.D., LL.D.

Born April 29th, 1855—Died December 29th, 1921.

(PLATES X., XI.)

WHEN, a year ago, Sir German Sims Woodhead retired from the Editorship of this Journal—chiefly, as may now be stated, for reasons of health—we expressed, and that with great sincerity, the hope that we might long enjoy the benefit of his advice and co-operation. Our hope has had but a brief fulfilment, and it is with great sorrow that we now bid the last farewell to our well-loved chief and friend.

German Sims Woodhead was born at Huddersfield on April 29th, 1855. He came of a good old Yorkshire Quaker stock, and was proud of his ancestry and proud of being a Yorkshireman. Time and again he would sum up a situation, or a man, in one of these terse sayings characteristic of his keen-brained compatriots—rendered all the more effective by the tang of the dialect with which it came from his lips. He was educated in his native town at the Huddersfield College. His talk in after-life of his upbringing reflected the happy life of a vigorous family. The boyhood holidays were usually spent amid the beautiful surroundings of Conway in North Wales, where for many years his father had a house. All his life, no holiday was complete without a fresh visit to the familiar scenes. In 1873 he came to Edinburgh to commence his medical studies. He was a good, though, as far as class records go, not a specially brilliant student, and he excelled on the athletic field. He proved a first-rate sprinter, and made records in the hundred yards and the quarter mile; in addition, he was a forward in the 1st Rugby Fifteen, and did good service to the E.U.A.C. as honorary secretary and chairman of committee. He was thus a popular figure in the University, and he was prominent in its social life, being a member of the committee of the Students' Club. Among the features organised by the Club were Saturday evening "Socials," at which musical talent found scope, and Woodhead, with his good tenor voice, was frequently a performer at these gatherings. Even at this early period there were evident to his contemporaries the energy, cheerfulness, strength of character, and unselfishness, which all through his life made him a power for good. He graduated in 1877, and the position he occupied in his year is best judged of from his being elected one of

the Presidents of the Royal Medical Society, that keenly critical, keenly appreciative jury of a man's peers, whose judgment often has more of the prophetic in it than has the arithmetical summation of examination percentages. That he had also attracted the attention of his teachers was shown by his being chosen to act as House Surgeon by Mr Chiene, afterwards Professor of Surgery, who had recently been appointed to the Infirmary staff; later he was House Physician to Dr Claud Muirhead. After a period of study in Vienna, Woodhead returned to Edinburgh. His interest in pathology had begun when he joined the voluntary class in practical pathology started by D. J. Hamilton (afterwards Professor of Pathology at Aberdeen). He now again came under Hamilton's influence, and commenced a research on the pathology of the medulla oblongata, which gained for him in 1881 his Doctor of Medicine Degree with a thesis gold medal. On Greenfield succeeding Sanders in the Chair of Pathology in the University, a friend of Woodhead's was to have been first assistant in the department; when he unfortunately fell into bad health, Woodhead was appointed to fill that position. Alert, confident, with well-ordered thought and speech, Woodhead rapidly achieved success as a teacher. Notwithstanding increasing responsibilities he still found time for outside activities. Outstanding amongst these was the part he played in the then newly established Volunteer Medical Staff Corps, especially during the period antecedent to its obtaining Government recognition. During his whole life he was an officer in it and in the O.T.C., Medical Unit, into which it developed, and he displayed a continuous active interest in this branch of the military service.

In 1881 he married Harriet St Clair Erskine, daughter of Mr John Yates of Edinburgh, who during their long married life shared all his interests. His friends were her friends, and to her from their hearts the deepest sympathy now goes out.

During the eight years of his assistantship to Professor Greenfield he came to occupy a foremost place on the junior staff of the University. It was at this time that, in his departmental work and as Pathologist to the Royal Infirmary and to the Royal Hospital for Sick Children, he acquired the minute knowledge of morbid anatomy, which formed the basis of his outlook on the processes of disease, and of which his *Practical Pathology*, first published in 1883, gives evidence. He was the first exponent in Edinburgh of the then infant science of bacteriology, which even in these days he applied specially to the study of tuberculosis. In 1885, with his friend Hare, he wrote the work *Practical Mycology*, which was probably the first systematic book on bacteriology in the English language.

Edinburgh in the eighties was fortunate in having among its distinguished alienists Dr (afterwards Sir) John Batty Tuke, who for many years represented the University in Parliament. Tuke was in many ways a remarkable man. A citizen of the world, with a shrewd

knowledge of men and great social influence, he kept his finger on the pulse of scientific progress, and it was his delight to be counsellor, patron and friend to a coterie of men all very much his juniors, most of whom have since risen to eminence. From this centre of vital force emerged two organisations which ever since have played an essential part in the growth of the Edinburgh Medical School. There was a movement among these men towards research, and Tuke was the leading spirit in carrying through the Royal College of Physicians in 1887 the proposal for the establishment of a Research Laboratory. For over twenty years as its Curator he stood on constant guard in its interests. Again, it was at a dinner in Tuke's house in 1886 that the Edinburgh Pathological Club came into being. In both movements Woodhead took a leading part. He was elected the first Superintendent of the Laboratory, and he was the first Secretary of the Pathological Club. In the former capacity it fell to him as executive officer to organise and equip the first laboratory in this country devoted to medical research. He had a broad and far-seeing conception of how science is to be made ancillary to practical medicine, as is shown by the fact that from the beginning rooms were provided for physiological and chemical work, as well as for the study of morbid anatomy and the routine examination of pathological products derived from individual cases of disease. Thus organised, the Laboratory at once became a centre to which the active young members of the school naturally gravitated. Woodhead had not much opportunity for personal work in it, for in 1890 he was called to exercise a similar organising function as the first Director of the Laboratories of the Conjoint Board of the Royal College of Physicians (London) and Royal College of Surgeons (England). Here he set to work along the same lines, although the circumstances were somewhat different. In Edinburgh, pathology had been from 1831 the subject of a Professorial Chair, but in London in the early nineties the subject was just emerging from the dead-house stage, and in many of the hospitals it was taught as a temporary occupation by junior physicians, who had no intention of making pathology a specialty. Again, there were the geographical conditions which made it exceedingly difficult for a young physician or surgeon to undertake research in an institute at a distance from the hospital to which he was attached. Notwithstanding inherent disadvantages, however, during Woodhead's nine years of Directorship, the Laboratory played a definite part in the development of scientific medicine. To mention only two facts—by Ruffer's work it became the place round which the probing of the protozoal theory of cancer origin centred, and it was there that Almroth Wright commenced his classical researches on infection. Woodhead's own industry within its walls was continuous. To this period belong his work on *Bacteria and their Products*, a new edition of his *Practical Pathology*, and the founding of the *Journal of Pathology and Bacteriology*. Interest in the new departure in thera-



(Photo by Russell)

SIR GERMAN SIMS WOODHEAD, K.B.E., M.D., LL.D.
As Major, R.A.M.C. (T.)



[Photo by Russell]

SIR GERMAN SIMS WOODHEAD, K.B.E., M.D., LL.D.
As Brevet-Colonel, A.M.S.

peutics constituted by Behring's work on diphtheria antitoxin led to Woodhead being asked to organise the first machinery for the systematic diagnosis of the disease in London, and to undertake the preparation of the serum used in the London Infectious Hospitals under the Metropolitan Asylums Board. A voluminous report from his pen to that body constituted a valuable early contribution to the study of the conditions to be observed in the manufacture of an effective antitoxin, and recorded the results of one of the first large experiments in its use, which did much to establish the antitoxin method on a substantial foundation. As one of the scientific workers under the Tuberculosis Commissions of 1890 and 1894, Woodhead became connected with the official movement going on ever since for the investigation and suppression of the tuberculosis scourge.

In 1899, on the lamented early death of Kanthack, Woodhead was called to succeed him in the Chair of Pathology at Cambridge. Here he found himself in new surroundings. The place of a teacher of pathology in either of the older English Universities is a peculiar one. In the case of both the local opportunities for clinical work are restricted, and those preparing for a medical degree seek their bedside experience elsewhere. The pathologist's pupils, while they have had a thorough scientific training, come to him with relatively little practical knowledge of disease. Moreover, his best students will early become attached to the medical schools where their practical instruction has been obtained, and only a very few can return to their Universities to engage in research. What the function of the Professor of Pathology should be thus constitutes a difficult problem. Woodhead's immediate predecessors in Cambridge, Roy and Kanthack, both of whom had died all too young, had with considerable success devoted themselves to those aspects of general pathology, which can be studied apart from practical medicine. Work along such lines enhances the scientific reputation of a school, and leads to teaching which is a stimulus to the better class of students who have had a scientific training such as is given in Cambridge. Woodhead's earlier experience, and his natural bent towards the more obviously medical and clinical aspects of his subject, led him to adapt his teaching more to the larger group of his pupils, who frankly intended their medical curriculum to be a preparation for the practice of medicine. It thus came about that as between his department and the scientific departments devoted to the earlier subjects of the medical curriculum there tended to be a certain difference of outlook. The real solution for such a situation in a medical school must be along the lines of providing for both points of view having adequate scope. Be that as it may, Woodhead was criticised for not continuing the development of general pathology in the University. The situation was rather aggravated by two facts: firstly, that soon after his appointment the building of the extensions of the medical department made serious scientific

work difficult or impossible; and secondly, that when the buildings were completed, his energies were largely absorbed by the work of the Tuberculosis Commission. Into the reconstruction of his Laboratory he threw himself with his usual vigour, and he prepared a plan for a complete department, in which teaching and research of the most extensive kind could be carried on. The plan was so arranged that a smaller unit could be at once proceeded with, leaving the larger scheme for future development. This less ambitious department was opened about fifteen years ago, and was all that he was destined to work in.

Whether or not Woodhead's conception of his professorial duties was right, he devoted all his power to carrying it out. He made the most of the Cambridge Long Vacation term, and gave his students a course such as their state of knowledge made them capable of benefiting from, and after a few years he carried out a plan of dividing the degree examination in Pathology into two parts, one taken at the end of his own course, and the other in the final examination. By this device he ensured that a University standard in his subject should be maintained up to the end of the student's curriculum.

By the time he left London, Woodhead's advice was widely sought after in connection with medical problems generally, and in 1901 when he became a member of the Tuberculosis Commission of that year he was drawn into what came to be his largest undertaking. The immediate occasion of the appointment of the Commission was the startling statement made by Koch at a Congress in London a few weeks previously to the effect that the bacillus of bovine tuberculosis was not pathogenic to man. Woodhead's interest in tuberculosis was no doubt first aroused by Hamilton, who, before the bacillus was discovered, had worked at the differentiation of caseating from ordinary broncho-pneumonia. After Koch's early work Woodhead had, with M'Fadyean, studied the morbid anatomy of bovine tuberculosis. A subsequent investigation on tuberculosis in children, in Edinburgh, led him to the conclusion that infection could take place through the intestinal wall without any lesion occurring at the point of entry. As has been noted, he had worked for the 1890 Commission on the sterilisation of tuberculous meat and milk. He was thus specially qualified for taking the part he did in the new enquiry. The reference to the Commission was in essence to determine whether tuberculosis could be transmitted from animals to man, and, if so, under what conditions. To answer these questions a series of prolonged experimental enquiries was undertaken at a great station in Essex, specially organised for the purpose, and officered by an able band of workers. The investigation extended over about twelve years, and during the whole of that period Woodhead played a leading executive part in the work of the Commission. He brought his unrivalled knowledge and his great energy to the definition of the problems raised and to considering the means to

be employed for their solution. Labouring day and night, he was conversant with every turn of the work, and took a predominant share in sifting the enormous mass of detail of which the evidence consisted. The conclusion finally arrived at—that tuberculosis can be transmitted from cattle to man, mainly through the agency of the milk of tuberculous cows—has been generally accepted, and the place which the Commission's Report now occupies in the literature of the subject is a tribute to its quality. One result was that Woodhead came to be recognised as one of the leading living authorities on tuberculosis. Hardly a Medical Congress took place either in Europe or America but he was asked to lead off on some one of its aspects, and by his numerous addresses to medical societies throughout Britain, and by many semi-popular lectures, he contributed very greatly to the formation of public opinion, which has borne fruit in recent legislation on the subject, and in the attitude now taken by individual members of the community towards tuberculosis as a disease capable of prevention and capable of cure when remedial measures are taken sufficiently early. Looking to this last fact by itself anyone who, like Woodhead, has brought hope to the stricken sufferer, must be regarded as a benefactor of the race.

Hardly had a certain measure of relief from the stress of the tuberculosis enquiry been attained than there came the Great War. As we have seen, Woodhead had from his student days been an enthusiast in the Volunteer Medical Service, and he continued his active participation when the Territorial Force came into existence. Had he been a younger man, one knows where he would inevitably have been found, but he cheerfully adapted himself to the limitations imposed on him, and was none the less instantly at the service of his country. As usual, it was not a showy position he sought, but one where there was hard work, and work with much of drudgery to be done. At first he was associated with the local medical administration in Cambridge, and here, in addition to his military work, he was active in promoting measures for the social and moral welfare of the young soldiers who were flocking to the colours. He was afterwards appointed Medical Officer *i/c* Irish Command Depot, and was advanced to the rank of Colonel. It was impossible for him to be in such a position without exercising his genius for helping his fellow-men. Woodhead's first chief, Mr Chiene, had an adage that if anyone saw something which wanted doing, it was his duty to do it. In Tipperary, as the war went on, Woodhead had full opportunity to practise this principle. He came up against the problem of the disabled soldier, and he at once set himself to its solution. Workshops were designed, fitted with all sorts of ingenious contrivances for the education of the maimed man, so as to put him in a position to utilise to the full for his own and his country's benefit what capacities he had left. The success attending his efforts rested on an aspect of Woodhead's

ability which came out in everything he took in hand. It was never his way when attacking a problem to lay down the lines and leave others to work out details. These he dealt with himself, and he had an unerring and almost uncanny instinct for a plan that would work, so that without fuss and with little effort that was obvious to an onlooker a scheme seemed of itself to take material shape. No one ever saw a laboratory of Woodhead's littered with apparatus which had turned out to be useless.

In the later stages of the war, Woodhead acted as one of the War Office consultants, and also as Inspector of Laboratories throughout the United Kingdom. In the former capacity he played a part in developing the application of bleaching powder to the disinfection of drinking water in the field, which proved of great importance in the prevention of disease. Both positions involved strenuous labour and constant travelling, to which his strength was beginning to be unequal. But the work had been undertaken, and was done in his usual unobtrusive and effective way. Not content with these official duties he threw himself into a new development of the sanatorium treatment of tuberculosis, which primarily arose out of the war. The prolonged idleness of the consumptive while under treatment has been long recognised to carry with it bad moral and physical effects. The new movement under the Cambridge After-Care Committee had as its object the exploration of the possibility of giving a patient such light and partial work as he was physically capable of all through his course of treatment. To this end a village colony came into existence at Papworth, and Woodhead was the moving spirit in securing for it financial resources, and in designing the provision of varieties of work for its inmates. Already a large measure of success has attended its operations, and the volume by Woodhead and Varrier-Jones which describes the conception of the scheme is a pioneer contribution to the solution of a most important practical problem.

At the end of the war he received the well-earned honour of a knighthood.

Many of Woodhead's friends thought he never thoroughly recovered from a severe intestinal infection he contracted abroad in 1906. It was eighteen months before the immediate effects of the condition passed off, and the cardiac affection from which he suffered during the last years of his life may have had its origin in this illness. His attitude towards life during these latter years was characteristic. He made no secret of his knowledge that at any time and with little notice the end might come. But to him every day of life was sacred as a day of opportunity. He continued to fulfil his University duties, and went on meeting every call made on him for help either with pen or voice from causes he had at heart, and that as readily as when in vigorous health he could spend two or three nights each week in the train on similar service. Time and again he had warning attacks which any

ordinary man would have considered justification for calling a halt. But Woodhead was game to the end. In July last he took part in the International Tuberculosis Congress. In September he spent a three weeks' holiday in Edinburgh. He may have had a premonition that the sand-glass was running low, for he devoted it to revisiting the haunts of his early Edinburgh days and to intercourse with friends which to them was as ever a delight. One of the present writers travelled south with him after the visit, and during the journey he was full of his Papworth scheme, telling of the difficulties that had been overcome, of future developments he had in mind, full of confidence that the new features which characterised it formed an advance on the current methods for the treatment of tuberculosis. He was in Edinburgh again in November with Dr Varrier-Jones, studying with his colleague the details of Sir Robert Philip's anti-tuberculosis organisation, and on his own spending hours amongst the students, becoming acquainted with characteristics of the present-day methods of teaching his subject in his old department. After the Cambridge term he went with Lady Woodhead to spend Christmas with friends in Lincolnshire. During service on Christmas morning one of the attacks to which he was subject came on. He seemed to be recovering from this, and being well enough to sit up, he set to to revise the notes of his Lent Term lectures. While thus engaged the last call came, and he passed away.

Such being Woodhead's life in broad outline, there are several aspects of it which require more detailed reference.

He was best known to the medical profession through his *Practical Pathology*, which for over thirty years was the standard student's text-book on the subject. Its appearance marked an epoch in the teaching of morbid histology. The reader was primarily attracted by the merit of the illustrations, in which, for the crude woodcuts of a semi-diagrammatic nature found in the text-books of the period there were substituted pictures reproduced by the application of the most technically advanced methods of chromo-lithography to beautiful drawings, many of them from the brush of the author, and all produced and reproduced under his critical eye. The student, seeing before him reproductions of the best of his own preparations, turned with avidity to the text for an interpretation, and here he found clear and detailed descriptions of morbid processes, of whose accuracy he became the more convinced the more he used his own microscope. The book, which first appeared in 1883, had an immediate success. The first edition of 1500 copies was exhausted in three months, and the subsequent editions—each an advance on its predecessor—ran into many thousands. The work on *Practical Mycology* which Woodhead, along with his friend Hare, brought out in 1885, was really a companion volume, and was conceived and executed along similar lines, but it suffered from the fact that the world was not ready for it.

Bacteriology was then in its infancy, and many years were to elapse before familiarity with its methods became part of the equipment of even the good graduate in medicine. The book thus appealed only to a small group of specialists, by whom, however, it was much appreciated and used. Happily a different reception awaited Woodhead's *Bacteria and their Products* which, in 1891, appeared in Walter Scott's Contemporary Science Series. Written like other members of the series for the general public of the educated it admirably fulfilled its function, and it had a wide circulation. It gave a clear and thoroughly up-to-date presentation of the subject, and though this was in a semi-popular form, it was sufficiently comprehensive to lead to the book becoming a valuable introduction to bacteriology for the serious student of the science.

In 1893 Woodhead founded this Journal, and thereby British pathologists obtained an organ in which their scientific work could be worthily recorded. For the first five years he and his friend Mr Young J. Pentland, the Edinburgh medical publisher, were obliged to face serious financial obligations, but it rapidly made headway, and after that period success was assured. Its founder had appreciated that an awakening was taking place in medical science in Britain, and from the beginning it reflected the best work of the period. In the early volumes there appeared James Mackenzie's first papers on the circulation, those of Ruffer on the protozoal origin of cancer, many of Washbourn's bacteriological researches, Muir's work on the blood, and many other contributions, the results of which are now included in the permanent corpus of medical knowledge. For thirteen years Woodhead carried on his editorship single-handed. What this means, those who have had similar experience, especially in a scientific journal, can appreciate. To mention only one detail as indicating how thoroughly he did his work, it may be stated that he personally read both the first and second proofs of every article published. His relations with contributors were always of the happiest; his unwillingness even to appear to hurt anyone made it difficult for him to say no to the writer of an inferior article, and we never heard of any case where his treatment of such a one was resented.

When in 1906 the newly started Pathological Society of Great Britain and Ireland felt the need of having an organ for the publication of its *Proceedings*, he most cordially met a suggestion that an official relationship should be established between the Journal and the Society. With great generosity he arranged for certain of the members sharing with him the proprietorship, and during fourteen years this association continued with complete harmony and goodwill on either side. Though relieved of some of the drudgery, he performed all the controlling functions of editor-in-chief up to the middle of the war, when it became impossible for him to find time for the work. The ultimate transfer

of the Journal to the Society was part of his original design, and when it took place in 1920, increasing preoccupations, but, as has been said, chiefly failing health, led to his desiring relief from the post he had created, and which he had filled so worthily for twenty-seven years.

Mention of the Pathological Society naturally leads to a notice of the part Woodhead played in its activities. At the meeting in Manchester which gave it birth he embraced the project with hearty goodwill, and his tact and practical good sense were instrumental in smoothing over initial difficulties. Of all its senior members he took the most active interest in its proceedings. While health lasted he rarely missed a meeting. He followed the papers and discussions closely, frequently interposing in the latter with contributions from his great stores of knowledge. He took delight in appreciating and encouraging new talent, and his notebook was constantly in hand when new ideas cropped up, or new advances were described. In the committee room he was always ready with sage counsel, and no one more than he enjoyed the after-dinner relaxations of the Society, when Woodhead's song—usually a mirthful one—was ever a welcome and much applauded item in the medley of entertainment which characterises the good-fellowship of these gatherings.

Woodhead was largely concerned in a movement for bettering the conditions of laboratory attendants, which resulted in the formation, a few years ago, of the Pathological and Bacteriological Laboratory Assistants' Association. At the time of his death he was its President. The position of a lad going in for laboratory work had for long been recognised to be unsatisfactory. In a busy department it was often difficult for either the chief or the head technical assistant to spare time for the formal training of the junior staff, nor were any lines laid down for such training. It is true that often wonderful results were obtained, but after a few years of work a lad might easily find himself at a blind end. This state of affairs certain of the highly efficient men, heads of the technical staffs in various laboratories throughout the country, set themselves to remedy. At Woodhead's instigation hearty co-operation with the Pathological Society was established, and the formation of the Association has put the whole situation on a new basis. A definite scheme of training in the various aspects of laboratory work has been laid down. Any boy whom a few months' trial has shown to be willing and promising now enters on a course of preparation for a life's work. After his training he may obtain the Association's certificate, only conferred after a searching examination conducted by the Council of the Association and by the heads of pathological departments. Woodhead took the keenest interest in this movement, and encouraged it in every way.

In addition to activities which were more or less closely related to his own work, Woodhead had many calls made on him in connection with cognate matters where his administrative ability was likely to be of use. He was, for example, a member of the executive of the Imperial Cancer Research Fund. His advice was constantly sought in connection with appointments to Chairs of Pathology or of Bacteriology all over the Empire, and his knowledge of all the men likely to be considered for any Chair made his advice valuable. He was keenly interested not only in new methods of teaching his own subject, but also in the general development of medical education. In 1910 he was a member of a committee, with Lord Elgin as Chairman, appointed by the Treasury to report on the Government Grants to the Scottish Universities. He took a very active interest in the enquiry, and in a note to the report he sketched a scheme for the better organisation of clinical teaching in Edinburgh, the essential features of which were a few years later carried into effect. It was a pleasure to him to think he had had the opportunity of aiding a development in the school of his old Alma Mater, to which he was to the end the most loyal of sons.

Woodhead was sometimes criticised for devoting too little of his energy to original research, and some of his papers—such as those on bacterio-therapeutics and on continuous temperature records in cattle and in men suffering from tuberculous infection—exhibit an insight into the heart of a scientific problem which indicates that had he chosen, or to state the truth more accurately perhaps, had his life been less one of ceaseless preoccupation, he would have taken a high place as a thinker. As a scientist he will be chiefly remembered by his work on tuberculosis, though, apart from his papers on the morbid anatomy of the disease, the part he himself played in research on the subject is tantalisingly obscured by his habitual self-suppression. It cannot be gainsaid, however, that he gathered round him a band of devoted workers by whose investigations the tentative conclusions he had already reached were firmly established. His work on the disinfection of drinking water by chlorination had the merit of having proved the practicability of the method long before the war made the search for some such process a clamant necessity. But, to tell the truth, Woodhead by nature was one of the doers of the world's work, one of the necessary people if facilities are to be provided for other people working, one of the people whose willingness to bear burdens often gets for them little credit. Once entangled in responsibilities of this kind there is no release for a man, though sometimes probably Woodhead undertook what he might have left to others. When all is said and done, however, it is no mean achievement to have got into a life's span, as Woodhead did, the organisation and maintenance of departments for teaching and research in three great schools of medicine; the placing of anti-

toxin therapeutics on a sound basis in this country; the large share he took by his work on tuberculosis in settling one of the most controversial scientific questions of the last fifty years; the maintaining for thirty-five years the leading textbook on morbid histology; and the conduct for nearly twenty-seven years of this Journal. These constitute a sum of work with which any man might be satisfied.

But apart from his professional work, Woodhead took a keenly active part in all movements for the moral betterment of the world. A lifelong abstainer, he was always ready by voice and pen to advance the cause he had at heart. He was a prominent exponent of scientific knowledge regarding the effects of alcohol, and by lectures and addresses all over the country he brought that knowledge down to the individual. It was a great tribute to the influence of a personality that Woodhead did not need to speak of temperance to make men temperate when in his company.

It was the same in his work in sacred things. When speech was called for he could, and did, speak, with the quiet assurance of one who had faced the difficulties and found the solution for the practical needs of the lives men and women must lead in the world. But here again it was by the atmosphere he created round him that his best work was done. In the affairs of the Church he was a loyal Congregationalist. He was a deacon of Emanuel Congregational Church, Cambridge, and he did much to promote the interests of the denomination as a whole. Woodhead was no fine weather sectary, and when he considered that the principles of non-conformity had been encroached on by the Education Act he joined the ranks of passive resisters. It was an unpopular step to take, as Woodhead well knew it would be, and it earned for him much obloquy, such as is cheap to natures which bend to the prevailing wind, but on a matter of conscience he was immovable. He even found scope for humour in the situation when, in distraint for his rates there was carried off from his house as a thing of value a very obsolete, very ornate microscope which he kept in his study as a curiosity.

In Woodhead's private relationships with his fellowmen large-heartedness was the conspicuous trait. He was generous, often almost to a fault, with deed and purse; many a worthy one was helped on to success by him, and many a one who had fallen by the wayside was put back on the road to a life of self-respect. Of his good deeds, as of the disappointments which must inevitably sometimes attend good deeds, no one ever heard. He was at home in every company, whether he was conferring with a Cabinet Minister or willing away a tedious wait during a night journey before the fire in the porter's room of a wayside station. He was the best of friends and a delightful host and companion, always cheery, often with a vein of humour running through his conversation, interested in all manner

of things. A quiet Sunday in summer, when the roses were out, spent with his wife and himself in the beautiful home he built in Cambridge was an unforgettable delight.

Anyone who would understand Woodhead must appreciate that he was a great practising Christian, to whom the reality of Jesus was the central fact of existence. A clean soul shone out of that clear eye of his. He wanted the world to be a better place, and in the promotion of any good cause he was prepared to spend himself with utter selflessness and self-effacement. Indeed he never seemed to think of himself at all. He was a good man, and his cheerful serenity during the last two or three years of hopeless illness has not been the least lesson he has offered to his fellow-pathologists.

JAMES RITCHIE.

A. E. BOYCOTT.

H. R. DEAN.

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WOODHEAD.

(The subjoined list has been compiled by Mr T. H. Graham, Librarian of the Royal College of Physicians, Edinburgh, and Mr F. G. Binnie, Department of Pathology, University of Cambridge. To these gentlemen the Editors desire to express their very hearty thanks.)

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