TEACHING OF HYGIENE IN ELEMENTARY SCHOOLS.

A REPORT ON THE PRESENT CONDITIONS AND PROSPECTS OF EDUCATION IN HYGIENE IN SCHOOLS IN THE UNITED KINGDOM.*

By G. A. HERON, M.D.,

Physician, City of London Hospital for Diseases of the Chest, Victoria Park.

[ENGLISH VERSION.]

MEMBERS of this International Society who are interested in the question of the teaching of hygiene in schools, know that the Society has stamped with its approval the proposals I had the honour to submit to our Inner Council at its meeting in Paris in May, 1903.

The Inner Council unanimously accepted these proposals; and with a modification made at the suggestion of the representative of the Government of Russia, the proposals were unanimously accepted by the Conference held at Copenhagen in May, 1904.

Full details of these proposals were published in *Tuberculosis*, the journal of our International Society, in August, 1903, and in September, 1904.

In the end of 1904, the Central Bureau of our International Society did me the honour to ask me to carry out in the United Kingdom the resolutions adopted at the Copenhagen Conference, which authorized the appointment of "at least one person in each nation represented in our Central Bureau" to do what he could to further in his own country the teaching of hygiene in schools.

The Central Bureau, at my suggestion, gave me the great advantage of having as my colleague in this work Mr. G. L. Bruce, whose intimate knowledge of matters educational is very well known and is held in high consideration by the English Board of Education.

As a representative of our Society, I have had several interviews with some of those at the head of the English and of the Scottish Departments of Education. It is a pleasure to report to this Society that these two principal authorities are fully alive to the very great importance of having school children educated in hygiene. Any representations made to either of them will certainly receive their most serious attention; and these two bodies are heartily with us in desiring that children should leave school with a clear view of the importance of living healthy and temperate lives, and of the means by which this end can surely be reached.

It is my duty to give in this report a short statement concerning the present state of education in hygiene in schools in the United Kingdom.

ORGANIZATION OF BRITISH EDUCATION.

But before doing so it may interest some of my hearers if I state some details of the organization of our Education Department. There is one central education authority for England and Wales, another for Scotland, and a third for Ireland. These three authorities are independent of one another, and each is responsible only to Parliament.

The authority for England and Wales is called the Board of Education. At its head is a Minister who is a member of Parliament and of the political party which, for the time being, happens to be in power. The permanent officials of the Board of Education are able men who have had long and special training in the affairs of education, and who take no active part in public political controversies.

In the strict sense of the phrase, there are no State schools in the British Isles. Interposed between the State education authorities and the schools are certain local education authorities. Each of these local authorities, within its own locality, is responsible for the upkeep of the public elementary schools. Disagreement between the Government departments and these local authorities is not infrequent; and the powers of the Government are, in many ways, so circumscribed, that the local authorities are, in no small measure, able to act very much as seems to them good.

Again, there are in the United Kingdom our great public schools, and our very many private schools, over which neither the State nor the local authorities can exercise control.

I despair of making clear to you these affairs of school government in my country. It is a fact that, outside of the

education authorities and the schoolmasters, it is rare to meet an Englishman, a Scot, a Welshman or an Irishman who has even a hazy notion of the details of our very complex system of education. From this it follows that the progress of reforms in education is of necessity slow, because the interests of so many different authorities have to be considered.

In the United Kingdom, those who wish to become teachers in schools aided or supported by the rates are required to undergo a certain course of special instruction. Their studies are carried out in training colleges. In addition to the obligatory subjects of study, the pupils in those colleges may take up certain subjects which are optional, but for which, when the pupil passes his examination, he gets credit. Among the optional subjects is included a slight knowledge of hygiene.

1. England and Wales.

In England and Wales the "Regulations for the Training of Teachers" are as follows: "A study in outline of the constitution and operation of the body and mind in health; application of the results of these studies to the work of the teacher; signs of distress and defect, and methods of dealing with them in school."

Among the optional subjects, but for female teachers only, is what is called "housecraft." Under this head are the following requirements:

- (a) The chief needs of the body for the maintenance of health.
- (b) The hygiene of clothing, with special reference to the proper clothing of working people and their children.
- (c) The hygiene and practice of physical exercises.
- (d) The outline of food preparation; the nutritive and other values of various foods in relation to diet, including the cooking, from simple and cheap materials, of such meals as are needed by working-class people and their children.
- (e) The elements of house management and hygiene.

One cannot but regret that even this slender addition to the training in hygiene is not given to the men as well as to the women who propose to become teachers.

In a certain number of schools the instruction in hygiene is entrusted to the ordinary teachers attached to the school.

The Board of Education has indicated the lines on which that teaching should proceed, and these lines are followed, more or less closely, in schools subsidized by the State and in certain other schools which are not so subsidized. Where the youngest children are concerned the Board recommends that cleanliness, the uses of sunshine, eating and drinking, posture and movement, games and sleep should be brought under the notice of the scholars in the simplest words. The older scholars are also instructed in these subjects, but with considerable fullness of detail, and, in addition, they receive lessons on fresh air. Still older children, in addition to the subjects already mentioned, receive instruction concerning tobacco, accidents and illness, cuts, abscesses, burns, sprains and bruises, insect bites or stings, fits, haemorrhages, and "when to send for a doctor."

Although these subjects are taught to the eldest children with considerable fullness, it is to be regretted that much more attention is not given to the study of the commonest types of disease, and, above all, of infective diseases and their prevention, especially with reference to tuberculosis.

2. Scotland.

The Scottish Education Department is the central authority for Scotland. Its constitution is practically the same as that of the Board for England and Wales. The powers of the Scottish Department are, as is the case with the English Board, very greatly limited by the fact that there are intermediate authorities between the Department and the schools.

Instruction in the laws of health is given in all save one of the training colleges, and they are twelve in number. In one of them each lesson lasts three-quarters of an hour, and one lesson only is given in each week of the summer college term. In another college one lesson in each week from September till Christmas constitutes the course of teaching of hygiene. The lesson lasts one hour. In another college twenty lectures are given during the winter. Four colleges have one hour per week of the summer term devoted to the teaching of hygiene. Another gives one hour and a half per week, and another two hours per week. Of the remaining two colleges, I have no information on this point. In only seven of the colleges is the instruction given by medical men.

The instruction given in these Scottish training colleges is intended to develop the power of recognizing the presence of

* Read at a meeting of the Council of the International Society for the Prevention of Tuberculosis, during the Paris Congress of the Society.

those physical defects which, from their frequency among school children, are common causes of backwardness in learning and of inability to master even the simple school lessons.

The system of teaching hygiene is described in an official document to which I am allowed to refer. In substance this is the plan:

At convenient times, during the course of instruction, school children, having among them marked examples of common physical defects, were assembled and used by the teacher of hygiene to demonstrate to his pupils in the training college how these physical defects can be promptly recognized.

"For example" (here I quote from the official document already mentioned), "at the point where the lectures dealt with the organs of speech and the prevalence of adenoids, children were brought from a school, and a demonstration was given by the lecturer in which the effects of these growths were brought into prominence. Phonetic exercises, the examination of different sounds, reading aloud—all these and other means were taken to show that the child's power of producing sounds was seriously affected."

Defects of the eye, ear, skin, hair, etc., in short, the common diseases affecting children, are demonstrated in the same way. Not the lectures, but these demonstrations are made the chief feature of the instruction in the laws of health given to pupils who intend to become teachers.

After each lesson the teacher of hygiene examines his pupils in what he has taught them, and does what he can to correct errors and clear up misunderstandings. In this way it is sought to bring home to the pupil who is being educated to teach, that the schoolmaster should always be alive to the fact that it is a part of his business to see that physical defects in his scholars receive prompt attention, and that, where these defects are curable, they are not allowed to stand between the scholar and his studies.

These courses of instruction are frequently inspected by a medical officer in the service of the Scottish Education Department, and he reports favourably upon the thoroughness of the instruction given.

Three-fourths of the expenses incurred in connexion with these courses of instruction are paid by the Scottish Education Department. The remaining fourth is paid by the local authority, without whose consent this special instruction cannot be given. The payment of the Department is, however, withheld from any training college in which the system of teaching hygiene is not favourably reported on by the medical inspector.

Unfortunately, instruction in the laws of health is not an obligatory part of the school curriculum in England, Wales, or Scotland. It rests absolutely with the local education authority to exclude it or to include it in the curriculum. The same is true of the English and Scottish training colleges. Moreover, the instructors in the subject may or may not have themselves received instruction in hygiene as part of their training or subsequently. It is also, unfortunately, the case that it is only recently that the students in training took up, in any numbers, the subject as a branch of special study; in Scotland they did so for the first time only so lately as last year.

It is true that in both England and Scotland school teachers are urged by the central authorities to give to the scholars under their care a clear view of the way in which disease spreads, and of how it can be prevented. Girls are to have their attention specially drawn to the proper care and feeding of infants.

All this is well for a mere beginning; but surely the teaching of the laws of health is so important a matter to every country that among all peoples it ought to have a first place in any system of education, both in schools and in universities. Every scholar, every university student, should be required to show that he is possessed of a fair knowledge of the subject. This probably could best be done by including it in university and school examinations among the compulsory subjects.

3. Ireland.

In Ireland the principals of the training colleges are required to devote special attention to hygiene in connexion with the training of their pupils. No special programme has been drawn up, but the course in elementary science embraces the principles of the subject.

In all schools the leading principles of hygiene are impressed on the pupils by the teachers, who are also required to satisfy themselves that children living in infected houses do not attend school.

In December, 1904, the Commissioners of National Educa-

tion in Ireland issued a notice to the managers and teachers of national schools in that country, which emphasizes the great importance of using "their best efforts to encourage the adoption of hygienic precautions calculated to reduce the excessive mortality from tuberculosis, a disease so widespread and fatal in Ireland. The supposition, which very generally prevails, that tuberculosis is mainly hereditary and not spread by infection, and which accounts for the indifference shown in regard to the adoption of preventive measures, is not borne out by medical investigation."

Here is a paragraph of this official notice which I quote in full because it shows that the work of this International Society at Copenhagen already attracts attention:

At the recent International Tuberculosis Conference held in Copenhagen, special attention was directed to the great advantage of employing the schools as a medium of spreading a knowledge of the best means of arresting the progress of the disease, and the co-operation of the various educational bodies of European countries was invited.

FUTURE WORK.

As regards the help which the action of this Society has already given in England to the promotion of the teaching of hygiene in our schools: Some months ago certain well-known medical men and others—among whom were representatives of the English branch of this Society—had an interview in London with the principal officials of the Board of Education. A syllabus was then submitted to the Board for the guidance of school teachers of hygiene, and the importance of the subject was pressed upon the notice of the Board.

At the invitation of the President of the Incorporated Societies of Medical Officers of Health, which is the representative Society of English medical officers of health, I addressed that body on the subject of the teaching of hygiene in schools and universities. At the close of my address a committee was appointed to do what it thought best calculated to promote the teaching of hygiene in schools. This Committee has frequently met during the past summer, and has decided on a course of action which, in general terms, amounts to this: The Committee is of opinion that the teaching of hygiene in universities should be made a part of the studies of every student, but is agreed that the various university authorities should settle this matter for themselves.

The Committee is strongly of opinion that the education authorities should be asked to entrust to medical men the teaching of hygiene in the training colleges, and believes that if this could be ensured efficient teaching of hygiene in schools would soon be a part of our national education.

The Committee does not think it would be desirable to invite medical men to attempt the teaching of elementary hygiene to school children. The introduction of a special teacher into the routine of school life would, the Committee believes, give rise to friction, and would not tend to the public advantage.

The Committee strongly feels that it would be much better, in the interests of all concerned, that the pupils in the training colleges should alone receive the special instruction given by a medical man.

The Committee has drawn up a syllabus which embodies its views concerning the method which medical men should adopt in teaching hygiene to the pupils of the training colleges. The syllabus will in a few weeks be presented to the Board of Education.

This Committee, of which Mr. G. L. Bruce and I are members, has already received assurances that what it submits to the Board of Education will receive the fullest consideration.

I have to thank the officials of the Board of Education, of the Scottish Education Department, and of the National Board of Education of Ireland for the help they have so kindly given me in preparing this report.

In conclusion, the attitude of the peoples of the United Kingdom towards this subject may thus be summed up: the French word "Rapprochement" expresses the present state of affairs. Let us hope that throughout the United Kingdom "Rapprochement" will speedily give place to "L'Entente Cordiale!"

Professor BROUARDEL, President of the Council, received the report, and thanked Dr. Heron for it in the name of the Council.

Dr. HERON then proposed, and the Council unanimously adopted, these resolutions:

The Council desires that every effort should be made in the countries represented in it to ensure the teaching of hygiene in schools and in universities.

The Council requests the Central Bureau of the International Society for the Prevention of Tuberculosis to appoint in every country represented in our Society at least one delegate, whose duty it shall be to do what he can in his own country to promote the cause of education in hygiene in schools and in universities, and to ensure that this education shall have special reference to the prevention of infective diseases, and particularly of tuberculosis.

The delegate shall report to every congress and conference of our International Society on the condition and prospects of education in hygiene in the schools and universities of his country.

NOVA ET VETERA.

GLEANINGS FROM THE EXPERIENCES OF A NAVAL SURGEON A CENTURY AGO.

[EXTRACTED AND COMPILED BY EDITH S. STOKOE,
GREAT-GRANDNIECE OF THE WRITER.]

DR. JOHN STOKOE, whose entrance into the career of a naval surgeon was described in the *BRITISH MEDICAL JOURNAL* of May 20th, 1905, p. 1119, was more keenly interested in the naval than in the medical side of his service, if we are to judge from the greater space occupied by the former subject in his autobiography; there are, however, a few details of disease and treatment to be gleaned therefrom.

He has little to say of the first months of his life on board the hospital ship *Union*, which he entered October 12th, 1794, but an examination of the Muster Book gives some interesting details which may supplement his meagre record.

The 200 beds available were, on an average, occupied by 150 to 170 patients. There were female nurses, varying in number from 9 to 12, who appear to have remained at their posts for a considerable time, as their names are repeated month by month at the end of the lists of patients. As regards victualing, they were classed with their patients, and provided for by the same contractor. The charge per head in 1794 was 1s. a day, but it afterwards rose to 1s. 3d. The three assistants are not named, and the only record of their existence is the date of their joining the ship, yet they lived on board.

The surgeon was not only responsible for the health of the patients under his charge, but for paying all expenses not classed as daily food. At the end of each month is a list of such outlays for "contingencies." "Messenger for the parson" is an invariable entry, but the amount rises and falls, leading to the conclusion that the parson's services may have been required more or less frequently. "Thread 2s." occurs once, but "affidavit 1s." is a regular item. The surgeon affirmed on oath, on the last day of the month, that his patients had, one and all, been kept long enough and not too long on the hospital ship.

Considering the number usually under treatment, it does not appear that one, John Stiles, was very highly remunerated, since for "one quarter's shaving of the patients" the fee was only £2 5s. 6d. "Postage of letters" was a small amount—6d. to 1s. 6d. . . . never more.

Three parallel columns are found in all Muster Books, headed respectively—"Cloaths," "Conduct Money," "Funerals." In the Muster Book under consideration the first is invariably blank. "Conduct Money," always 4s., was given only to men "invalided," whether as reward or as payment for their being conducted on shore is not explained. I incline to the latter view. Very few men died, and the expenditure for "Funerals" cannot be regarded as lavish—10s. a head.¹

When these entries in the Muster Book cease and the captain received bills on the Government, settling all accounts, Stokoe's papers explain what was taking place on the *Union* between that date (August, 1795) and November of the following year, when they are resumed. He is, however, as is not infrequently the case, inaccurate in his dating. He says:

"Late in the following spring (1795) a Russian fleet arrived at the Nore, when an order came to transfer our sick to the *Spanker*, a large floating battery, built after the plan, I believe, of Sir Sidney Smith, but much better adapted for a hospital than for the defence of a harbour. Our vacant wooden cradles were soon filled by Russians in a dreadful state of disease and filth, scurvy in its worst form and typhus fever making up nearly the whole of the number. Every attention on the part of the Sick and Hurt Board was paid [on] the representation of this state of things, and lemons, oranges, and vegetables were by their order supplied to the sufferers in great abundance with the happiest effect, for in a

few weeks scurvy had ceased to exist. . . . Fever continued to prevail in the Russian fleet for a long time, notwithstanding every endeavour to arrest its progress by ablution and fumigation with nitrous acid, under the direction of Dr. Menzies, who had been sent down by the Board for that purpose. When a fever patient arrived on board he was immediately placed in a warm bath, well washed, and put into a clean bed, his clothing removed to a distant part of the ship, and subsequently burnt on the isle of Grain. By this example the sheepskin coat with the wool on, then the principal article of clothing of the Russian sailor, forming his summer and winter dress by day and his bed at night, gradually gave place to the jacket and trowsers of the English sailor, much to the improvement of his appearance and safety in a gale of wind. Fumigation was continued for some time with little apparent benefit; it was also practised on the most sickly ships, and on these occasions I was the constant assistant of Dr. Menzies.

"The duty on board the hospital ship became at length very arduous; disease had spread itself to the attendants, many of the nurses and helpers had caught the fever. . . . The interpreter and his brother German flattered themselves in the protection of tobacco (being both inveterate smokers), but that hope was soon dispelled by the former being laid up with fever."

Mr. Stokoe had mastered the Russian language, and now found his knowledge of value. The other assistant also caught the fever, and a very heavy share of work fell upon him for a time. "At length," he says, "the fever subsided, and our numbers in hospital were considerably reduced."

A period of service on the *Glutton* yields nothing of medical interest.

The surgeon in charge of the *Africa*, another Russian hospital ship, "was a German, one of the oldest surgeons in the navy, and a very worthy man, but from his manner of speaking English it might be supposed that he had recently entered the service." The lieutenant in charge interfered with internal affairs. The German merely remonstrated so long as this had no serious results. The lieutenant, however, "proceeded so far as to go down into the hospital at a late hour, and order the fires in the wards to be put out. An explosion was the consequence, and a curious and amusing scene took place between them on the quarter-deck on the following morning, when the doctor requested an interview. On the lieutenant's appearance the former observed: 'Mr. B., I have often pointed out to you dat dough you command de ship, you have no business in de hospital; dat is my department, and I am sorry to find dat you are too fond of riding de high horse; but take care dat you do not tumble off. And py Gott, I will make you tumble off!'"

The number of patients was great, and typhus fever was again the prevalent disease. Mr. Stokoe was not to escape; "the disease assumed its most malignant form. I was covered with blotches and petechiae, and blisters that were applied to my legs produced a bloody discharge instead of serum. Delirium had subsided, leaving a degree of coma that rendered it difficult to get a reply of Yes or No, yet I was sensible to what was passing in conversation around me, and I heard the worthy doctor proposing to a brother surgeon . . . whom he had called in to see me, a change in the medicine, and the other's reply that it would be of no use. Sentence of death thus announced had no terrors, disease having rendered me indifferent about living or dying, yet it dwelt on my mind, and, shortly after they left me, I crawled out of bed, and, supporting myself by the chairs and table, made my way towards the stove in the ward room. All around it fled at my approach, and I seated myself in a chair, where I sat for a minute or two, when I fainted, and was carried to my bed. As soon as I came to myself I called for wine, which at this period was the favourite remedy, combined with bark, for typhus fever; and I was told afterwards that in little more than four hours I had drank full two bottles, by which my life was certainly saved. Profuse perspiration took place, and afterwards sound sleep for many hours."

The crisis past, convalescence soon followed, expedited by the kindness of the carpenter on the *Union*, who "generously proposed to take me to his house in Rochester." No one in the neighbourhood would receive a patient from the ship as lodger, "from the terror entertained of the disease."

In an engagement between the *Acasta* and "the *L'Aventure*, private vessel of war of Bourdeaux,"² two men were wounded.

"One fine fellow—the captain of the forecastle—had both legs shot off above the ankle. When brought below the feet

¹ On the *Africa* 11s. was paid.

² Captain's Log Book, *Acasta*.