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THE TEACHING OF HYGIENE AND TEMPERANCE IN SCHOOLS AND COLLEGES.*

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WITH the marvellous growth in recent years of interest in the welfare of the child, there have arisen many phases of education that a short time ago were never thought of. The mental and moral equipment of children, more or less, was thought to compass the whole scheme of education ; but to-day a broader and wider view is taken, and it is now generally recognized that something more than mere mental stock-in-trade and a small measure of moral training is necessary. This is recognized in the fact that the New Code for Elementary Schools, issued in July, 1907, for the first time in English history, contains the subject of "Hygiene and Physical Training," thus bringing into elementary education the care of the body as well as the care of the mind.

The following extract from the Code shows how the matter stands :

"SCHOLARS OTHER THAN INFANTS.—In schools for scholars other than infants the subjects described below should be taught in a manner suitable to the age and capacity of the several classes. It is not necessary that all the subjects should be taught in every class, and the curri-

* An address introductory to a discussion before the Society for the Study of Inebriety held in the rooms of the Medical Society of London, 11, Chandos Street, Cavendish Square, W., on Tuesday, January 14, 1908.

culum as a whole may be modified when the Board are satisfied that the needs of the scholars or the circumstances of the school require it."

The following are the subjects referred to: The English language, handwriting, arithmetic, drawing, observation lessons, geography, history, music, hygiene and physical training, and domestic subjects (for girls only).*

It is not so long since the headmaster of one of our high schools, in speaking on this subject, said that he would like to see a new scheme of education established on some such lines as the following :

1. Physical welfare.
2. Morals.
3. Manners.
4. Instruction.
5. Accomplishments.

The principal point here is the fact that physical welfare is placed first on the programme, instead of, as hitherto the case, being almost, if not entirely, neglected.

In the evolution of education the stage has been reached when it is seen to be necessary to give the boys and girls some information as to the laws of life and of health, the better to fit them for the stress and strain of life.

It remains to be seen whether such teaching is practicable and if so, how much of it can be given.

NECESSITY FOR SUCH TEACHING.

There are several potent national, as well as personal, reasons for giving the boys and girls in the upper standards of the elementary schools and the higher classes of the secondary schools some definite and regular instruction in the subjects of hygiene and temperance.

The Committee on Physical Deterioration in their report to Parliament, July 10, 1904, said: "The Committee believe that more may be done to check the degeneration resulting from 'drink' by bringing home to men and women the fatal effects of alcohol on physical efficiency than by expatiating on the moral wickedness of drinking." The only effective plan of doing this

* Code of Regulations (Cd. 3594), p. 3. Wyman and Sons; 3d.

is to begin in the school before habits are formed and character is fixed.

1. There is the enormous infant mortality, amounting in the year 1905 to 120,000 in England and Wales alone; or, in other words, one quarter of the whole of the deaths in England and Wales are of children under twelve months of age.*

In England and Wales the general death-rate is declining, but the infant death-rate is stationary, and this notwithstanding the fact that there has been an enormous improvement in sanitation and in the standard of comfort of the people. Such improvements have had a direct influence on the total death-rate, but the deaths of infants still continue at the old high rate, one in six dying before they are twelve months old.† Every medical officer of health, every coroner, and every medical practitioner knows that this high death-rate is due to one great primary cause—ignorance on the part of the parent as to proper food, proper care, and proper environment, some of which is certainly due to the drinking habits of the people.

It is impossible to reach the parents of to-day, but it is possible to reach, whilst they are still in the schools, the prospective parents of the future, and thus do something practical towards enhancing the chances of life for the children of the next generation.

2. There are a very large number of men and women who may be termed incapables. The men are physically unfit for the army, rejected by the navy, and find no place in the labour market. There is a correspondingly large number of women physically unfit to meet the needs of everyday life. What can be done for this vast army of physical incapables? The answer is that practically nothing can be done. Here and there isolated cases occur of awakening on the part of the people and a removal to better environment, and the assumption of a better plan of life; but for the vast mass nothing can be done: they are beyond physical redemption. Something, however, can be done in the school to teach the child to avoid the errors into which their parents may have fallen. A recent Home Office return shows that large numbers of little children still get their early training in the public-house, and yet the parents of these

* G. Newman, M.D., "Infant Mortality," p. 4.

† *Ibid.*, p. 6.

children were but a few years ago the scholars in our elementary schools.*

The following table gives a general summary of the outcome of the inquiries. There was also an attempt to ascertain the numbers of children to be seen in the public-houses in question per hour, and the results varied from 9'02 per house in London to 0'043 in Bristol. But the methods of inquiry afforded no certain means of comparison in this respect. Thus, while the returns showed for 472 houses in Bristol 2,441 children, at the rate of 0'043 per house per hour, it has been ascertained that 15 houses account for no less than 1,542, or at the rate of 0'856 per house per hour. All the children were under sixteen, many being babes in arms :

Place.	Houses observed.	Days.	Average Hours per Day.	Women.	Children.
London - - -	23	4†	12'94	39,541	10,746
Birmingham - - -	10	16	7'62	—†	2,949
Bristol - - -	472	14	8'57	—†	2,441
Liverpool - - -	9	8'55	3'28	7,800	316
Manchester - - -	24	12	—	—†	8,973
Sheffield - - -	6	14	7'85	1,054	1,181

If 10,746 children are seen in only twenty-three public-houses on four days, that number must be enormously multiplied over the whole of London, and still more so over the whole country. It would seem that there must have been something deficient in the training of these women to permit of them exposing their little ones to such unhygienic environment.

3. The science of preventive medicine is a factor amongst us of the highest value in promoting health and lengthening the span of life. It is in the school that the first teachings of this science should be given, so that as they emerge from it the boys and girls should know how to choose the best in life, instead of, as at present, being left in many cases to choose the worst.

* Home Office Return, "Women and Children in Public-Houses." Wyman and Sons; 2d.

† Two of the 23 houses were observed for only two days.

‡ In these cases no special enumeration of the women was made, though 2,873 were observed to go into one house.

4. "Medical men professed to be observers of the manner in which the moral character of the individual was often determined by his physical state. They knew that the basis of wrong action was frequently to be found in ill-health, so that in their view one of the factors which would lead to the moral improvement of the nation was a better hygienic education."*

Since the passing of the Public Health (London) Act, 1891, the death-rate for the County of London has fallen nearly 30 per cent. This means that in 1905-1906, 19,000 people were alive who under the old conditions would have died.† Apply the teaching contained in this fact to the mortality from alcohol, and enforce the same lessons in regard to it as to other causes of disease.

5. A sound mind in a healthy body should be the first desideratum of all education.

These are some of the reasons underlying the demand for the teaching of hygiene and temperance as an ordinary part of every child's training in the school.

THE CONNEXION OF TEMPERANCE WITH HYGIENE.

There are many educationalists who can see the value of teaching some degree of hygiene, but fail to see where the specific teaching in regard to temperance comes in. The following points are therefore presented for consideration.

1. Hygiene is the science of health, and as the common use of intoxicants has a great deal to do with the causation of ill-health and disease, some definite instruction should be given regarding it, such as the following :

- (a) That alcohol, habitually used, can of itself produce disease, from which the abstainer remains exempt.
- (b) That it will aggravate diseases to which all are liable.
- (c) That it renders those who habitually use it more open to attacks of various forms of illness.
- (d) That the alcoholist has a worse chance of recovery from a fever or an injury than an abstainer.

* Sir Victor Horsley, F.R.S., report of speech in *Manchester Guardian*, February 19, 1906.

† Report of Medical Officer of Health for the County of London for the year 1906.

- (e) That in the crisis of a disease the alcoholic gets less benefit from alcohol when used as a medicine than the abstainer.*

2. Environment is an important factor in determining health, and the bad environment of the home is a most common cause of sickness and disease. A careful estimate shows that each working-class family of four and a quarter in Great Britain is spending £18 15s. 4d. per annum in alcoholic liquors.† What a vastly better environment could be secured by the expenditure of this money in clothing, food, and comforts!

A recent inquiry into the physical condition of children attending the public schools of the School Board of Glasgow shows some remarkable evidence as to the effect of environment. Returns were obtained respecting 72,857 children—36,883 boys and 35,974 girls. The schools from whence these came were divided into four groups:

	Schools.	Children.
(a) Poorest district - -	26	24,661
(b) Poor districts - -	27	25,348
(c) Better-class districts -	11	11,453
(d) Higher-class districts -	9	11,395

It was found that, as surely as a child was in group (a), he or she was likely to be smaller and lighter than the children from group (b), and so on with the other groups. But it was when the average height and weight were classified in correlation with the number of rooms in the houses in which the children lived that the most striking results were obtained.

Taking the children of all ages from five to eighteen, the average weight and height, classified according to the number of rooms, was found to be as follows:

One room :		Height.	Weight.
Boys - -	46·6 inches.	-	52·6 pounds.
Girls - -	46·3 „	-	51·5 „
Two rooms :			
Boys - -	48·1 „	-	56·1 „
Girls - -	47·8 „	-	54·8 „

* Professor Simpson in an address to the medical students at Edinburgh University.

† Sir Thomas Whittaker, M.P., "Economic Aspect of the Drink Question," pp. 15, 16.

Three rooms :		Height.		Weight.
Boys	-	50'0 inches.	-	60'6 pounds.
Girls	-	49'6 „	-	59'4 „
Four rooms :				
Boys	-	51'3 „	-	64'3 „
Girls	-	51'6 „	-	65'5 „

As the report states, "it cannot be an accident that boys from two-roomed houses should be 11'7 pounds lighter on an average than boys from four-roomed houses, and 4'7 inches smaller. Neither is it an accident that girls from one-roomed houses are, on the average, 14 pounds lighter and 5'3 inches shorter than girls from four-roomed houses.* There is, in many cases, an intimate connexion between the one-roomed environment and the drinking habits of the parent. Could not something be done to inspire the boys and girls with the idea of having bright, clean, hygienic homes?

3. A most common originator and helper of disease is malnutrition. One of the commonest reasons for lack of food in many homes is because money is spent in strong drink, under the impression that it is of equal value to bread or milk. Much might be taught in connexion with hygiene under the heading of food values. Another great promoter of death and disease is overcrowding. Here, again, the question of money hygienically spent comes in. Save the money from drink and add another room or two to the house.

4. Alcoholism is an important factor in the production of the degenerate. The boys and girls should be taught that alcohol is never a necessity to the healthy body, and that its use is hurtful to the healthy growing tissues of the child; and that even when manhood and womanhood is reached the quantity that can be tolerated may easily be exceeded. Hygiene attempts to attain the best condition of life and of health, and in this sense "toleration" is not hygienic. Bad air, insufficient food and clothing, want of sunlight, and many other unhygienic conditions, can be tolerated, but they are not the best conditions.

5. The alcoholics of to-day are said to be those who by their alcoholism have proved themselves to be intolerant to

* Report by Dr. W. Leslie Mackenzie and Captain A. Foster as to the Physical Condition of the School-children of Glasgow. Wyman and Sons; 10½d.

alcohol. As no one knows beforehand who is and who is not tolerant to this drug, it would be in accord with the doctrines of preventive medicine to teach boys and girls to leave it severely alone—at least until they are twenty-one years of age.

6. Since intemperance is the practical end of the non-resistant user of alcohol, and “since the classes most prone to industrial alcoholism are also very prone to have large families, and since the children of the alcoholic appear to abound in the various categories of the degenerate, it is at all events likely that this action of alcoholism on the health and vitality of the stock is the most serious of the evils that intemperance brings on the community.”* The only way, therefore, to prevent alcoholic degeneracy is to teach the truth concerning it as part of ordinary hygiene.

7. There is a close and intimate relationship between the excessive infant mortality already referred to and the drinking habits of the community.†

These are some of the ways in which the teaching of temperance may be legitimately and educationally linked on to the larger subject of hygiene.

THE VALUE OF SUCH TEACHING

has long been recognized, as will be seen in the following brief résumé of what has been done by voluntary agencies.

As far back as in the year 1861 a series of letters advocating the teaching in elementary schools of the laws of health and the dangers of intoxicating drinks was contributed to an influential Scottish weekly by a leading director of the Heriot Foundation School in Edinburgh. The suggestions therein contained were put into operation in the ensuing year by the National Temperance League and the United Kingdom Band of Hope Union, the agents of which, during the following decade, had visited every elementary school in London and many in the provinces. The chemical lectures and illustrated addresses which formed the basis of the teaching were heartily welcomed by the teachers, many of whom, in advance of their day, had themselves introduced Nature-study and lessons in personal and domestic hygiene. Concurrently with these important developments, the scientific

* W. C. Sullivan, M.D., “Alcoholism,” p. 198.

† G. Newman, M.D., “Infant Mortality,” pp. 210, 211.

study of alcohol had engaged the attention of the medical profession, and in 1871 a manifesto against its indiscriminate use, either as a drug or a beverage, was issued by 269 of its leading members. It is not surprising, therefore, that in August, 1875, the British Medical Association resolved, at its annual meeting—

“That steps be taken to induce the School Boards of the country to include among the subjects of instruction in elementary schools an accurate knowledge of the teaching of chemical and physical science respecting alcoholic liquors.”

Two years later the London School Board offered the use of their schools, free of charge, for illustrated addresses on temperance by qualified lecturers. The United Kingdom Band of Hope Union and the National Temperance League at once responded. Lecturers were sent, and since that day many have been employed visiting schools, both in London and the provinces, teaching the children something of the laws of health and the dangers of intoxicating liquors. Other temperance organizations co-operated in this effort, and the Church of England Temperance Society, the North of England Temperance League, the Irish Temperance League, and several of the county Band of Hope Unions, have been since that time sending their lecturers into the schools.

In many towns temperance teaching has been introduced, and maintained by private liberality. For example, in Dundee, fifteen years ago, the chairman of the School Board offered to defray the expense of a series of three lectures on health and temperance in each school in that town.

Under this voluntary effort many thousands of lectures have been given, and immense numbers of scholars reached. At its best these voluntary schemes reach about 500,000 scholars once a year, but there are 5,762,000 on the rolls of our elementary schools. Deducting the infants and scholars in the lower standards by taking off 3,000,000 as possibly being too young to receive systematic teaching on the subject, it will be seen that there are 2,250,000 boys and girls at a critical age who have no instruction on this important subject. Voluntary effort may have reached 4,000 or 5,000 schools, but there are 20,151 in the country. These figures do not include any but the elementary schools, and it will at once be seen that if the middle and high schools were included another half a million of scholars would be added. The task of meeting the necessities of the case is too

gigantic for voluntary effort, however liberally supported or ably organized, because the teaching, to be effective, must not be spasmodic and intermittent, but regular and definite.

THE DUTY OF THE STATE.

As the idea gained ground in public opinion that this teaching should be more thoroughly given, a committee of the medical profession in 1904 presented a petition, signed by nearly 15,000 medical men, to the President of the Board of Education in London, urging that the teaching of hygiene and temperance (which is at present only on the Optional Code) be made *compulsory* in all the schools. Shortly afterwards a letter was sent by Sir W. H. Broadbent, M.D., F.R.S., to the chairman of the local educational authorities, enclosing the petition, requesting its consideration, and urging that the subject of temperance be, at an early date, taught in the elementary schools under their control. Here the matter stands at present, with the exception that the 1907 Code includes hygiene and physical training, but no specific mention is made of temperance teaching. Local education authorities can, if they choose, introduce this subject into the schools under their control, but something more is required. It is that the Board of Education should make the subjects of hygiene and temperance compulsory, and that H.M. Inspectors should be instructed to examine and report. The occasional lecture by the peripatetic teacher may and does have a certain value, but such a subject can only be really effective when regularly taught by the teachers themselves.

THE COLONIES AND THE UNITED STATES

have for a long time past adopted such teaching without difficulty and with most excellent results.

In Canada, with the exception of two provinces, hygiene and scientific instruction on the effects of alcohol are compulsory subjects in all public elementary schools throughout the Dominion. In the two excepted provinces (Quebec and Prince Edward's Island) teaching on temperance is given. In the Protestant primary schools of the province of Quebec lessons upon temperance and health are compulsory, while in the Catholic schools instruction in hygiene is compulsory, beginning with the fifth year of school work. In the books on hygiene authorized in the

Catholic schools the ill effect of the excessive use of alcohol is mentioned, but no special prominence is given to temperance instruction.

In Victoria (Australia) teaching on health and on the nature and effects of alcohol is placed on the list of compulsory subjects taught in all the public elementary schools.

In South Australia teaching of temperance is regularly carried out.

In Natal instruction is given in the primary schools on the laws of health and temperance, these being included in the list of optional subjects.

The whole question is dealt with still more completely in the United States of America. There the teaching of physiological hygiene, with special reference to the effects of alcohol and other narcotics, is compulsory in all schools under State or Federal control. About 22,000,000 children are being educated under this system.

Every one of the United States of America includes amongst its education laws provision for the compulsory teaching of hygiene and temperance. Further, the laws of the United States require the examination of teachers in these subjects. In addition, the laws enacted by Congress for all schools under Federal control, and by the Legislatures of fifteen States, specify that text-books on these subjects shall be furnished for the use of pupils who are old enough to use books on other subjects. The remaining States have no specified laws respecting books, but make it definite that hygiene and temperance shall be taught "as a regular branch."

It would seem, therefore, that the English-speaking countries, away from the Mother Country and in a freer and more progressive atmosphere, have brought their teaching on physical welfare up to the needs of the day, but that England, with its traditions and conservative methods, still lags behind, in giving the child some practical knowledge of the laws of life and of health.

A step forward has been made by the Board of Education, but it is a halting step, is by no means thorough, and does not go far enough. The ground that is to be covered by the present Code

(July, 1907) is specified in descriptive paragraphs, that relating to the special subject before us being as follows :

“HYGIENE AND PHYSICAL TRAINING, including exercises in proper breathing, instruction adapted to the ages and sexes of the scholars in the elementary rules of personal health in respect of food, drink, cleanliness, and fresh air, and careful cultivation of a correct posture at writing and other lessons. In any course of physical exercises the general physical development of the scholars should be aimed at, and, as a rule, the official syllabus of physical training should be followed. The scholars of any school not situated wholly on a ground floor should be practised in fire-drill. Instruction and practice in swimming may also be included in the time-table.”

It will be seen that the subjects of food, drink, cleanliness, etc., are specifically mentioned, and these will afford some scope for teaching temperance truths in the course of regular lessons if the teachers are encouraged to give the necessary lessons.

A series of explanatory notes follows the curriculum, and in these it is pointed out to the teachers that

“The instruction should be specially directed to the inculcation of courage, truthfulness, cleanliness of mind, body, and speech ; the love of fair play ; gentleness to the weaker ; kindness to animals ; temperance, self-denial, love of one's country, and appreciation of beauty in Nature and in Art.”

Here temperance, self-denial, and love of one's country are mentioned as being a part of the teaching programme.

The Commissioners in Education, in issuing the new Code, go on to say that, “the object of such instruction being the formation of character and habits of life and thought, an appeal should be made to the feelings and personalities of the children. Unless the natural moral responsiveness of the child is stirred, no moral instruction is likely to be fruitful.”

In this paragraph it is recognized that the teacher has something more to do than to simply impart book knowledge. He is to take a more active share than formerly in the training and development of good citizens.

In the prefatory memorandum with which the Blue book opens, the following statement is made, which shows the Board of Education to be anxious that this subject should engage the attention of local education authorities and of the teachers.

“HYGIENE.—The Board are considering carefully what steps can be taken to promote the teaching of simple rules of health to scholars in elementary schools. The Code already requires that scholars in elementary schools should receive instruction in the elementary rules of personal health in respect of food, drink, cleanliness, and fresh air; and the Board have given greater prominence to this part of the work of the school in the present Code by making express mention of hygiene, along with physical training, as one of the subjects that are to be included in the curriculum under Article 2. Some guidance as to the extent and character of the instruction which the Board think may usefully be given under this head will be found in the ‘Suggestions for the Consideration of Teachers and Others concerned in the Work of Public Elementary Schools,’ which was issued by the Board in 1905, particularly in Chapter XIV., which deals with ‘The School and the Health of the Scholars,’ and in Appendix VIII., which contains an outline scheme for teaching hygiene and temperance. The outline scheme for teaching hygiene and temperance has also been issued by the Board as a separate pamphlet. The Board do not, however, insist on instruction in hygiene being given in accordance with that scheme, and are prepared to consider any carefully-thought-out alternative scheme that may be submitted for approval. While the Board hope that local education authorities, managers, and teachers will do what is possible to effect immediate progress on these lines, they realize that the efficient teaching of hygiene in the future must depend largely on an increased provision being made for giving instruction in that subject in the training-colleges, and they are considering the matter further in connexion with the forthcoming issue of the training-college regulations.”*

WHAT LOCAL AUTHORITIES HAVE DONE.

The Commissioners of National Education in Ireland have gone considerably further than the English Board, and in their

* Code of Regulations (Cd. 3594). Wyman and Sons; 3d.

Rules and Regulations they include the subjects of hygiene and temperance as part of the compulsory education of children in the National Schools.

"Subjects of Instruction.—The ordinary school subjects are :
(1) English (including as sub-heads reading and spelling, writing, composition, and grammar), geography, arithmetic, singing, drawing, needlework (for girls), physical drill, manual instruction, object-lessons and elementary science, cookery (for girls), laundry work (for girls), kindergarten (for infants), hygiene and temperance."*

"It is expected that a regular course of lessons on hygiene and temperance shall be given in all schools. For the convenience of schools that are not required to teach science, a detailed programme under the title of 'Simple Lessons on Health and Habits' is introduced. As the principles underlying instruction in hygiene and temperance form part of the science programmes, the lessons on health and habits should be embodied in the syllabuses of schools that include the teaching of science in their curriculum."

A part of the detailed syllabus for the sixth standard embraces the following :

"Chief types of food material. Starch (and sugar), fat and lean. The making of a loaf of bread ; fermentation of starch and sugar by yeast ; production of carbonic acid gas and alcohol. The nature of alcohol ; its value as a food and as a stimulant ; the dangers of alcohol ; its effects on the body when taken in excess. Yeast substitutes, bread, soda, baking-powder."

In the "Simple Lessons on Health and Habits" the following is the scope of the teaching : Cleanliness, fresh air, pure water, warming and lighting, foods, illness, thrift, order.

Under the food section specific teaching is given thus :

"Beverages.—Tea, coffee, cocoa, are stimulants, but have little food value ; tea if drunk too strong and in excess acts as a poison—useful if taken in moderation.

"Alcohol.—Beer and spirits are stimulants of no food value ; the effects and dangers of alcohol ; its use by young people

* "Rules and Regulations of the Commissioners of National Education in Ireland, 1906-1907," p. 33. H.M. Stationery Office, Dublin.

always harmful; few people really require it; the evils of intemperance.

“*The Use and Abuse of Tobacco*.—Every one can do without it; it is dangerous and poisonous until young people have done growing.”

In England and Scotland many local education authorities have arranged for definite teaching on hygiene and temperance, of which the following are quoted as examples :

ESSEX EDUCATION COMMITTEE.

LECTURES ON HYGIENE.

SPECIMEN SYLLABUS NO. 1.

1. *The Special Senses and Their Organs.*
How connected with the Brain.
2. *Touch, Taste, Sight, Hearing, and Smelling.*
 - (a) The Skin and the Sense of Touch.
 - (b) The Tongue and the Sense of Taste.
 - (c) The Eye and the Sense of Sight.
 - (d) The Ear and the Sense of Hearing.
 - (e) The Nose and the Sense of Smell.
3. *Attention to the Organs of the Senses.*
 - (a) Care of the Mouth, Eyes, Ears, and Nose.
 - (b) Eye-strain and how it is caused.
 - (c) Treatment for Sore Eyes.
 - (d) When to consult a Doctor for Eyesight.
4. *The Training of the Senses.*
 - (a) Importance of—(1) Steady Nerves ; (2) Keen Senses.
 - (b) Skilled and Unskilled Labour.
 - (c) Bad Habits and the Senses.
5. *Effect of Alcohol on Touch and Sight.*
 - (a) Dr. Ridge's Experiments.
 - (b) Experiments made by Professor Kraepelin.

SPECIMEN SYLLABUS NO. 2.

1. *Water, a Necessity—*
 - (a) For maintaining Life (Bones, Muscles, Nerves. Blood, etc.).
 - (b) For Cleanliness of Body, Clothes, House, etc.
 - (c) For Cooking Purposes (Food made more Digestible),

2. *General Description of Water.*

- (a) A Fluid composed of two gases (H_2O).
- (b) It expands if heated (Boiling-point 212° F.).
- (c) It Freezes and becomes Ice at 32° F.
- (d) Hard Water, Soft Water. How to soften water.
- (e) Pure Water (six points).

3. *Water is obtained from—*

The Ocean, the Clouds, Springs, Lakes, Rivers, Ponds;
also from Wells (shallow and deep).

4. *How Water becomes Impure, and how to prevent this.*

- (a) Drains, Closets, Manure Heaps.
- (b) Storage of Water; Pond water; Filters.

5. *Effects of drinking Impure Water.*

- (a) Worms; (b) Diarrhœa; (c) Fevers; (d) Cholera.

6. *Beverages.*

- (a) Intoxicating Drinks (Beers, Wines, Spirits).
- (b) Tea, Coffee, Cocoa, Mineral Waters.
- (c) Water—Nature's Drink the best beverage.
- (d) Water compared with Alcohol.

THE BOROUGH OF LEICESTER EDUCATION DEPARTMENT issued information to all class teachers in the form of an eight-page pamphlet, embracing the following subjects:

Non-Alcoholic Beverages.—Water, Milk, Cocoa, Tea, Coffee.

Alcoholic Beverages.—Alcohol, Beer, Wines, Spirits.

Effects of Alcohol.—Action of Alcohol in Small and Large Quantities—Effects of Alcohol upon Food, upon Digestion, under Normal Conditions, and under Abnormal Conditions.

THE SWANSEA EDUCATION COMMITTEE have issued a capital scheme of lessons in Hygiene and Temperance, embracing the following: The Laws of Health—The First Necessity of a Healthy Life is Pure Air—The Second Necessity is Pure Water, Food, and Beverages—Alcohol is not a Food—The Heart and Bloodvessels under Alcohol—The Muscular System—Injurious Effect of Alcohol—Healthy Exercise—Rest—Cleanliness—Formation of Good Habits.

THE HORNSEY (LONDON) EDUCATION COMMITTEE in their Syllabus embrace the following: General Structure of the Human Body, and the Work the Principal Organs have to do—

Food and Digestion—Beverages and Drugs, including a Large Amount of Information on Alcoholic Liquors—Air and Breathing—Sunlight—Clothing—Houses—Cleanliness—Domestic Animals—Exercise and Rest—The Special Senses—Infection and Disinfection.

THE EDINBURGH SCHOOL BOARD made a regulation that half an hour's lesson in hygiene be given to all scholars, except those in the infant department, either once a week for the whole session, or twice a week for any part of the session. Their syllabus was a graded one for the different years.

First Year.—Position—Playing—Eating—Drinking—Clothing—Cleanliness—Growth—The Body—The Head—The Arms and Hands—Veins, Legs, and Feet—The Senses.

Second Year.—Parts of the Body: Eye, Ear, Voice, Nose, Touch, Wear and Repair of the Body—Need of Exercise and Rest—Cleanliness—Food—Taste—Table Manners—The Grape and its Juice—Beer.

Third Year.—Pure Air and Breathing—Food—The Teeth—The Stomach—The Heart—The Blood—Brain and Nerves—The Bones—The Muscles—Pain and Alcohol—Harmful Drinks—Cigarettes.

Fourth Year.—The Framework—Foods—Drinks—Digestion—Circulation—Respiration—Exercise—Senses—The Skin.

Fifth Year.—Diet—Alcoholic Drinks—Tobacco and other Narcotics: their Effect on the Digestive and Nervous Systems—The Economic and Moral Aspects of Intemperance.

A list of suitable text-books accompanied the syllabus.

THE GLASGOW SCHOOL BOARD issued the following circular to all their teachers:

1. The Board are desirous that systematic instruction in temperance should in future be given in all their schools, and they request that you would arrange for one lesson being given in each week, as a rule.

2. The lesson should be of half an hour's duration in the case of scholars in the third standard and upwards, but may be shorter in the case of younger scholars.

3. The instruction may take the form of an intelligence lesson, or may be taken on one day a week along with the religious instruction.

4. The teaching should be oral, and, through the liberality of a member of the Board, one of the following books will be supplied for the use of each certificated teacher : (a) "Notes for Temperance Teachers," Richardson ; (b) "Temperance Lesson Book," Richardson ; (c) "Temperance Science Reading Book," Topham.

5. A copy of "First Steps of Temperance" will be sent to infant mistresses.

6. A set of the above books is sent herewith.

7. While the Board recognize the special importance of temperance instruction, they would also take this opportunity of urging on teachers the desirability of keeping before the scholars other subjects which bear directly on character, such as obedience, truthfulness, honesty, reverence, etc.

THE GREENOCK SCHOOL BOARD seem to have gone in for very thorough teaching, the following being some of the subjects selected from their syllabus : The Blood and Alcohol—The Lungs and Alcohol—The Nervous System and Alcohol—The Brain and Alcohol—The Heart and Alcohol—Warmth and Alcohol—The Five Senses and Alcohol—The Muscles and Alcohol—Digestion and Alcohol—Disease, Death, and Alcohol. etc.

These are indicative of what local authorities have done and are doing. They show—

1. That the need is recognized for teaching the subjects of hygiene and temperance.

2. That these subjects are practical, and that the teachers can teach them, and that the scholars have the capacity to receive such teaching.

3. That what has been done locally in the places mentioned and in many others, can be done nationally with great advantage to the welfare of the people.

SOME OBJECTIONS CONSIDERED.

1. It has been objected that the plea for the teaching of hygiene and temperance as an obligatory subject is simply a covert attempt to introduce into the schools a temperance propaganda.

In reply to that, it must be observed that this teaching is asked for, but on national health grounds, and not for the purposes of any movement, and that, if such teaching be given, there is no need

for the teacher to depart from his strictly professional and educational methods. There is no occasion to introduce into the lessons any such words as brewer, publican, distiller, trade, public-house, temperance society, band of hope, pledge, or any of the phraseology common to the temperance platform. What is asked, is that the facts relating to alcohol and health be taught just as any other scientific facts might be taught. Teach the facts, and leave it to the ultimate judgment of the boy or girl to apply them as they choose when they emerge from the school into the wider sphere of life.

2. It has been urged that the curriculum is overcrowded, that the teacher is overworked, and that any addition, however good it may be, is impossible.

The reply is that it is merely a question of ways and means. Cannot some subjects that are taken be cut down a little? Cannot the syllabus of work be rearranged on the lines indicated in Sir William Broadbent's letter, in which the order of subjects for the Code would be as follows?—

- (a) The English Language.
- (b) Arithmetic.
- (c) Hygiene and Temperance.
- (d) Knowledge of the Common Phenomena of the
External World.
- (e) Geography.
- (f) History.
- (g) Drawing.
- (h) Singing.
- (i) Physical Exercises.
- (j) Plain Needlework for Girls.

There is, of course, difference of opinion as to precisely where the time shall be made, and what subjects at present taken should be released.

At a recent gathering of teachers it was suggested that "brush-work" might well be omitted, and the more important subject of hygiene and temperance taken. One of H.M. Inspectors present, however, objected to this, on the ground that, in his estimation, brush-work was most necessary, and would afford the boys and girls a pleasant way of spending their leisure evenings when they returned home from work. It was therefore thought by the inspector that it was better to teach a boy how to spend his

leisure in a simple amusement than to teach him how best to take care of his body and his health. The question can be put thus : Have we not in the past done a great deal in the way of teaching the children how their ancestors lived, and have largely failed to teach them how best to live themselves ?

By all means do not add to the work of the teacher ; relieve it if possible. Take the subjects most vital and most necessary, lessen the number of scholars in the classes, and, wherever possible, increase the school age ; but in any case, so arrange that this subject of vital importance is not left out.

3. It has been said that the schoolmaster is the prey of every faddist, and this is only another illustration of faddism. That, however, is not the view of the Board of Education. In the July (1907) Code the introduction contains some capital intimations to the teacher as to what elementary education really is intended to be, and, amongst many other useful items, we find the following :

“ The purpose of the Elementary School is to form and strengthen character. . . . To teach the children to fit themselves practically as well as intellectually for life. . . . To instruct them in the working of the simpler laws of health . . . to lay the foundations of conduct . . . to impart habits of industry and self-control . . . to help them to become upright and useful members of the community in which they live, and worthy sons and daughters of the country to which they belong.”

The request that the teaching of hygiene and temperance be made an ordinary subject is in complete harmony with this instruction of the Board, as to the scope of elementary education.

4. It has been said that, in teaching the children about alcohol, a reflection would be cast upon the parents who might be users of alcoholic liquors.

We may lay it down, as a general rule, that the teaching of the school must not be such as to weaken parental authority ; but if the outcome of the school is to be good citizens, with sound minds and healthy bodies, then the children must be taught to avoid many of the errors of the past. Children are taught the value of fresh air, but that does not alter the fact that they will, in the majority of instances, go to homes where every window is

kept closed. In teaching the child the value of fresh air, the teacher does not point out the ignorance or stupidity of the parent in keeping the windows closed, but tries to inspire in the child the idea that, when she has a house of her own, she will take care to open the windows because she knows the value of fresh air. It is by such teaching that the habits of this generation will be improved in the next. The teaching in regard to alcohol is on exactly the same footing.

5. The master of the high school raises the objection that he has the sons of brewers, wine merchants, and others connected with the sale or manufacture of drink in his school, and he says that, if any teaching on the action of alcohol is given, it is bound to raise a feeling in the school that will result in complaints to the governors and the withdrawal of pupils.

This would be the case, undoubtedly, if anything but strictly scientific teaching is given; but if in the course of health and science lessons facts only are given, and these stated in proper language, the objection can hardly hold good.

In any case, it is a question whether in the long run it would not be better to teach the facts, and to teach them thoroughly in the interests of the great majority, even at the risk of some little opposition.

6. It has been objected that the teachers are not able to teach this subject, and this objection seems to be shared by the Board of Education. In reply, it may be said that many teachers are qualified to teach hygiene, and that very large numbers are qualified to teach elementary science, and these, by a very little application to text-books, could easily give the simple teaching necessary. It is well known that the vast majority of teachers have the best interests of the scholars at heart, and they would readily bring themselves into line with the teaching of subjects that would be of practical everyday utility.

7. An objection has been raised that the teachers in some cases are themselves users of alcoholic liquors, and as such they could not do much in the way of effective teaching on the subject of alcohol to their scholars. In answer to this it may be pointed out that—

- (a) Teachers will teach the subjects that are in the Code, and in which the scholars are examined.
- (b) Whatever the personal habits of the teacher may be, the

welfare of the child is paramount, and they will honestly teach the facts from reliable text-books.

- (c) All teachers will agree that for boys and girls (say till the age of twenty-one) any form of alcoholic liquor is unnecessary and even harmful; they will further agree that intemperance is a very great evil. These two factors will enable them to cover all the ground necessary.
- (d) The teachers who are users of alcoholic liquors, in getting the necessary information and data to enable them to teach the subjects of hygiene and temperance, may modify their views as to the usefulness of such liquors.

CONCLUSION.

There does not seem to be any real obstacle in the way of this teaching being given regularly, persistently, and consistently but that of inertia. This obstacle can only be overcome by public opinion. It is, therefore, the duty of all who have the best interests of the children at heart to do their utmost to create public opinion. Let that public opinion speak sufficiently loud, and the Board of Education will instruct H.M. Inspectors to examine and report on the efficiency of schools in teaching these subjects; and when that moment arrives all other difficulties will vanish.