An Address

ON

THE DUTY OF THE MEDICAL PROFESSION IN THE PREVENTION OF NATIONAL DETERIORATION.*

PRESIDENTIAL ADDRESS DELIVERED BEFORE THE MANCHESTER
MEDICAL SOCIETY.

By WILLIAM COATES, C.B.

It is difficult in all countries to obtain statistical evidence which proves conclusively that a population has improved physically or the reverse. It is more difficult here, as detailed records are only available from army reports; and, as conscription does not exist, the measurements and weights taken only apply to a limited section of the community. But none of us who know the influence on health and strength of fresh air, good food, abundant light, and varied exercise, can doubt that—now more than 77 per cent. of our population live in big smoky towns, where dwellings are overcrowded and often densely packed together, with very little open space; where rapid transit is so easy and little exercise is taken; where the bad influences of drink and vice abound—degeneration is taking place. Those who oppose this view argue that a large proportion of the people classed as urban really live in wholesome suburbs, and that nutritious food is more easily obtained by the poorer classes than formerly. But there is a vast difference between a suburb and the country, and it is questionable whether our present dietaries are superior to the old. Mr. T. C. Horsfall, J.P., one of the foremost and most laborious workers in all spheres of social reform, has brought under my notice two valuable opinions bearing on this point. Dr. Grotjaun, after most exhaustive investigation, is convinced that the old diets of rye-bread and milk in Germany, and oatmeal, barley-meal, and sweet and butter milk in this country, gave better results than the tinned foods, bad fried fish, stewed tea, pickles, and other unwholesome and badly-cooked food upon which poorer parents often feed their children now. Admiral Bosanquet, who has been largely concerned with the training of boys for the Royal Navy, says that the finest boys come from the West of Ireland, where they have been mainly brought up on potatoes and fresh air. These boys hate the meat supplied to them in the navy, and often drop large portions of it into the sea. The same authority gives some striking statistics bearing upon physique. Owing to the popularity of the service and to the good pensions given, a large number of boys of classes higher than those that enter the army try to enlist. On an average 5,000 boys are needed annually; to get these 35,000 are rejected.

My own attention was first drawn to this subject twenty-five years ago by observing the poor physique of many young men who presented themselves for enrolment in our voluntary forces. During the intervening years I have had constant opportunities of observing not only our volunteer recruits but also the regular troops stationed at the Hulme Barracks, at which station from time to time I have had the medical charge of the hospital, and have conducted the medical examination of army recruits. Year after year the increasingly wretched physical condition of the majority of youths appearing for examination has deeply impressed me.

The standard for admission into the army is lower than in former years, and more men are examined and rejected before casualties are replaced. Statistics relating to the physique of recruits who have, in various years, tried to enlist into the British army cannot be regarded as conclusive, as a particular class of person must not be selected and relied upon to verify a universal truth, but in this country there is no other source where similar records have been kept.

Fifty years ago, as now, a recruit could enlist at the age of 18 years. The minimum height was then 5 ft. 4 in. It is now 5 ft. 3 in.; fifty years ago, however, a height of

5 ft. 4 in. would only admit a recruit into the army as an artillery or engineer driver, and the number required was small; 5 ft. 6 in. was the height for a line regiment; 5 ft. 3 in. will enter a recruit into any line regiment now.

Previous to 1883 a recruit could not enter the army unless his *minimum* chest measurement was 34 in. He can now enlist into some units with a chest of 31½ in., provided he has 2 in. expansion.

In 1862, 416 recruits per 1,000 weighed under 9 st. 4 lb.

In 1907, 657 recruits per 1,000 weighed under 9 st. 4 lb.

In 1862, 52 recruits per 1,000 weighed under 7 st. 12 lb.

In 1907, 83 recruits per 1,000 weighed under 7 st. 12 lb.

Fifty years ago, when the physical requirements for enlistment were much more stringent than now, 37 per cent. only of the recruits examined were unfit for service. In 1907, 39 per cent. were rejected by the medical officer; and General Sir Frederick Maurice considers that, when the numbers that are sent away by the recruiting sergeants and those dismissed as unfit after three months' service are taken into account, at least 60 per cent. are now lost to the army through physical unfitness.

This obvious deterioration of the class from which recruits are drawn is condoned by reference to unemployment and starvation; but these agencies have not been proved to be much more active now than in earlier times, taken over a series of years, and as the physical standard for admission into the army has been so often and progressively reduced, until it is now lower than ever before during peace, and as the population of the country is vaster by millions, the figures quoted should cause apprehension.

The foregoing particulars are given as evidence of physical degeneracy; but they are by no means relied upon to prove it; stress is laid rather on the mental than on the physical aspect of the case.

The previous figures do not apply to the whole population, but in Germany and other countries where conscription exists, the evidence is much sounder. It proves that the country places supply a much larger proportion of robust recruits than the towns, especially the larger towns.

You will not wish me to carry this question further. All will agree that there is at any rate deterioration enough to call for serious effort on our part to arrest its progress.

More Co-operation in our Profession Required.

The first point that I would submit is that more co-operation, more cordiality, is wanted in our profession if it is to become effective in its warfare against deterioration. All branches of the profession must be more closely welded together—the consultant, the teacher, the medical officer of health, the school medical officer, the general practitioner, all State-employed doctors. The work of each must be so interlinked with the other that broader views become possible, the corners of specialism rounded, the interest and special knowledge of the family doctor maintained and made use of; the collective experience of the whole co-ordinated.

At present no chain exists, only isolated links; some of them are strong, others weak. No serious attempt has been made to join them firmly together. The metal of most of the links has been well tried, and is sound, but a few of them contain flaws that can only be removed by reforging. It must be remembered that the strength of a chain is that of its weakest link.

Some of you will say that race regeneracy is the province of the public health specialist, and that he is reducing the risk of disease every year. But he is not so much concerned with the strengthening of the stamina as he is with the preservation of the race. He is catering for a weaker constitution, one that in olden days would have died in infancy or early youth. This is the tragedy as well as the glory of the problem. Life must be preserved; it is not for us to consider at the moment the effect upon that life or others, that the prolongation of a life entails. If the health medical officer is to accomplish much, he must work hand in hand with the family practitioner, and remember his perplexities, and the latter should be ready to do more than simply accept the privileges which the former offers him.

Our teachers, too—I say this with great respect—are not blameless. They attach so little importance to public

* In printing this address some introductory remarks and also some passages in the earlier part have been omitted owing to considerations of space.

health and other kindred subjects. Nothing is done in the student career to teach "brotherhood" amongst the various branches of our profession, nor responsibility concerning the improvement of race stamina. Such matters are as seldom touched as those equally important ones of medical ethics and a practitioner's difficulties—problems which confront the latter so seriously during all periods of his career.

Increased Powers to Education Authorities.

Those interested in national health look for good results from the powers entrusted to the educational authorities by the Education (Administrative Provisions) Act, 1907. This gives authority to carry out a systematic inspection of all children attending the public elementary schools, and also to make provision for the benefit of their health and physical condition.

Until recently, with perhaps the exception of advice regarding vermin, and very minor ailments, all cases in which a child required medical advice have been referred to the family doctor, or in necessitous cases to a hospital. Under the extended powers that have now been given, the institution of school clinics for the treatment of medical and surgical cases is contemplated, and in some towns, notably Bradford, are already in operation. A perusal of the report of a Special Subcommittee of the London Education Committee on this subject, which favours such proposals, fails to convince me of any necessity for these clinics, nor of any need to subsidize general or special hospitals for the treatment of public elementary school children. It does, however, give grounds for apprehension that their adoption would seriously injure the rights of the profession, and that many children with parents well able to pay would receive gratuitous treatment. Ailing children should be referred to the family doctor, and cases requiring special treatment should be sent by him to a specialist, or in needy cases to a hospital. Hospitals exist for the poor; many are endowed for their service, and no more reason exists for the education authorities to make payments to hospitals than to private practitioners. The profession should appreciate the importance of this subject, and affirm their ability and readiness to co-operate. If the issue is left to chance the result will surely be serious.

Co-operation between the Medical Profession and Educationists.

Further steps should be taken to associate the whole profession more closely with those who control national education. If this were done the cultivation of sound health would be a more prominent feature and stronger generations would follow. Elementary teaching has been too much pressed forward and involved. Its form, length, and nature have been settled apart from any guidance by the medical profession. It is not contended that members of our profession are capable educationists, but I do maintain that by their experience and training they are specially fitted to lay down rules for the moral and physical training of the young. In our great public schools education is directed primarily to the *training* of mind and body—whereas, in our lower grade schools, the tendency has been to give the scholar the maximum amount of knowledge necessary to gain Government grants and local élat, at the expense of a training so necessary to the higher development, which now meets with no reward and but scant recognition. I submit that if the medical profession had been consulted *health* and *training* would have bulked larger and the imparting of actual knowledge smaller, in the elementary school system. "Learning" and "training" should go hand in hand. The value of each increases fourfold when incorporated with the other. It is not easy to differentiate between the two. It may not be strictly true to say that learning is represented by those things which we remember, and training by those which we have forgotten; but it will hardly be denied that our lives are more influenced by the many things we have heard, or read, or done, which we have forgotten, than by those we have been taught and remember.

Learning may be described as a definite substance, capable of being expressed in precise terms; it can be condensed into a textbook, it is encyclopaedic in character, and its conclusions can be demonstrated on a blackboard. It is an aggregation of units of knowledge; it is perception, and accumulated, no doubt, it is power.

Training is more difficult to define; it is a subtle amalgam subject to infinite and indefinite numbers and forms of influence and environment; it matures rather than increases, it becomes an integral part of the pupil, an instinct ever ready to assert itself in emergency, in fact, guide, philosopher, and friend through life.

It is not *learning* alone, but mainly *training*, which enables the British to control millions of alien races; and in my opinion we are justified in impressing upon the public that the training of the moral sense and physical capacity should be greatly extended in our educational system.

The higher aim of education should be to fit the young to become good and healthy men and women, husbands, wives, and parents; loyal citizens and patriots.

Value of Judicious Physical Exercise.

The value of well-ordered physical exercise, of athletic games, and gymnastics, must not be overlooked as remedial agents in physical deterioration. Improperly practised violent exercise does more harm than good, and will produce evils of heart, lung, nerve, and muscle. It is dangerous to allow weak and strong children to play together indiscriminately—without classification or superintendence. Not only in public elementary schools, but in all schools, private and public, the doctor should give individual advice on these points. The value of *progressive* Swedish physical exercises is now well known, and these are taught and practised in a modified form in many elementary schools. They should be given daily instead of once or twice a week, they should be practised in the open air and during school hours, and they should be regulated by the medical officer according to the condition of each individual child.

In the army, where every soldier must be made as strong, agile, and "fit" as possible, a new system of physical training was adopted in 1907, based largely upon a Danish modification of the Swedish exercises. The main principles are *progressive* exercise—an avoidance of overtax, the harmonious working of all parts of the body, and an awakening of the intelligence of the recruit. The tricks of the gymnast and acrobat and the practice of many difficult displays, useless from the point of view of general development, have been replaced by *progressive* training in Swedish movements, followed by boxing, wrestling, swimming, bayonet fighting, fencing, etc. The greatest possible development is aimed at without strain. Under the old severe system, which developed muscle as rapidly as possible, young soldiers were often permanently injured. Under the new system a great improvement in the development of the recruit follows, and the number discharged from the army as physically unfit after three months' service has been considerably reduced. But in the army these exercises are carried out under the immediate supervision of the medical officer, who, having himself been through the training, regulates its application to individual needs. It is equally, if not more, important that children of every class should be under medical supervision during school life so that individual weakness may be counteracted and overstrain avoided. It is not to supersede school games that these exercises are advocated, but to supplement them. Games are of the greatest advantage, and make boys fearless, alert, and strong; but harm is sometimes done which medical supervision would prevent. In the case of girls, too, sufficient care is not exercised. Contrary to the experience of the public elementary schools, I have been able to satisfy myself from a number of examinations of boys and girls of the better classes attending preparatory and public schools that growth in both height and weight and general development takes place to a greater degree during the school term than during the holidays.

Playing Fields.

Can we, as a profession, do nothing to encourage our civic authorities to provide playing fields for the youth of our city? The Education Committees of Manchester and other large towns have made a wise concession in throwing open the school playgrounds during the summer months until dusk and during holidays. But this is not enough. The child must be less confined—more in different and fresher air. The Education Act, 1907, gives extensive

powers, and if the importance of playing fields for children is brought forcibly to the notice of the authorities something may be done in this direction. In Manchester and Salford a "playing fields society" was started a year ago. A field of 33 acres has been acquired at Gorton, where the working lads of the city play their games under kindly supervision; 800 lads can be seen there every Saturday afternoon and summer evening. The profession should give its heartiest support to such a beneficial movement. Games have always been a distinctive feature of English life, and they should take a foremost place in child training. They ensure fresh air, they cause delight, they help to form character and public spirit, and they can be made a means of promoting good physical development. Public gymnasiums should be provided by the municipality in all large towns where out-of-door exercise and field sports are difficult to obtain.

Diminishing Birth-rate and Marriage.

The serious decrease of the birth-rate in this country is intimately connected with physical degeneracy on the one hand and with the responsibility of our profession in its prevention on the other. There is a decrease in both birth-rate and marriage in all the countries of the world except Ireland, some parts of Spain, of Austria and Russia. The exceptions are due to the stronger religious beliefs held in these places regarding marriage and its objects. The birth-rate per 1,000 of population in Manchester was in 1907 only 28.3; in 1871-75 it was 38.9; in 1881 35.9; in 1891 33.8 per 1,000. Manchester is by no means worse than other towns. In Nottingham during the last twenty-five years there has been a fall in the birth-rate of 30 per cent. There are two quotations bearing on this subject which have struck me. Gibbon, in his *Decline and Fall of the Roman Empire*, alluding to the condition of affairs in the Roman Empire in the days of Constantine, writes:

The horrid practice so familiar to the ancients of exposing or murdering their newborn infants was becoming every day more frequent in the provinces, and especially in Italy. . . . The less opulent or less industrious part of mankind, instead of rejoicing in an increase of family, deemed it an act of paternal tenderness to release their children from the impending miseries of a life which they themselves were unable to support.

The second is an extract from the report for 1907 of Dr. Niven, Medical Officer of Health for Manchester. He says:

There can unfortunately be little doubt that the continual descent of the birth-rate is due not merely to the prevention of conception, but also in no small degree to destruction of its fruits. If so, the effect both on natural selection and on the national habits must be injurious. The offspring must also be injured in many cases by the efforts made to bring on premature labour.

Is there no parallel between these two statements? The first was the practice in declining Rome; the second is a practice in this country to-day. There are two apparent differences. The Romans were brave enough to slay their children openly, and the male committed the crime; whilst now in this country the deed is done in secret, and the male expects or allows his mate to do the gruesome deed. The decline is not due to physical but to moral degeneracy. It is a deliberate act of the will, which is depriving the country of hundreds of thousands of babies annually. It is useless to hide these facts. Every practitioner is familiar with them; they are spoken of to him without a blush—nay, he is often tempted, and with no mean bribe, to be an accessory to the act himself. Ought we not as a profession to do something to check this waste, to restore the old pride and glory that parents originally felt in the propagation of their species? We have opportunities which no one else has. But there is no doubt of the fact that the parents who should be "stocking" the empire with healthy children—the more cultured, more prosperous, wealthier, and thriftier classes of the country—are shirking their responsibility, producing fewer children, and the country will soon be swamped by the children of the only people nowadays who procreate freely, namely, those who live in the slums, and our alien population. In former years these "possible undesirables" were swept away by epidemic disease, which science is now controlling year by year more and more. By reducing mortality, preventive medicine is the means of bringing to

maturity many weaklings who, in the absence of present-day knowledge, would not have got beyond early childhood, and who would not, therefore, have been able to hand on their shortcomings of weakly physique, with its want of power to withstand the strain of modern life. It is interesting in glancing through the obituary columns of old numbers of *The Gentleman's Magazine* of a hundred and fifty years ago, which was a sort of record of social and political events of any moment, to note the great number of people who died from small-pox, and to the number of women who died in childbed. As, of course, only people of a certain standing in society would come into notice, the deaths throughout the whole population from these two preventable causes and other infectious ones must have been enormous. Many of these deaths are prevented now. Families of one, two, or three children are now the rule, and they are justified on grounds of thrift and health, when really in most cases the mania for pleasure and excitement, unwillingness to suffer inconvenience, and national irresponsibility, are chiefly the causes; this must result in national degeneration. Our plea is not necessarily for large families—these are sometimes potent as factors in the cause of deterioration—but that to regulate the size of a family by any other means than mutual self-restraint and self-respect must be demoralizing and productive of harm. It is where the children cause the most inconvenience that the decline is chiefly noticeable—where married women earn wages, and where social life is most interfered with.

It should be remembered that if marriage were regulated by the State a robust race could soon be raised; but this is not feasible, and any serious interference with the process of natural selection would rightly be regarded as sacrilege, and resented by all classes.

The subject is full of difficulties. How is it possible to limit the ever-increasing number of children born to the unfit in our slums? Can some system of race culture be made fashionable, so that the finer specimens of British humanity may take pride in producing a strong and noble race?

Should not the State give privileges to those with large healthy families, and try to make the rearing of children an attractive occupation to women of a fine type? Some graduation in the income tax, privileges in connexion with education, or facilities for entering the public services might appeal to the better-to-do, and some advantages in food and clothing and in municipal employment might be an inducement to the better working class. This generation might be the losers but later ones would benefit; and if those who pay taxes have the subject brought home to them, there will be a better chance of "curbing" negligent and thriftless parents.

It is a great waste that so many of the finer specimens of our race remain "bachelors," and fail to fulfil their natural obligations, when there are two millions more women in the country than men. Undoubtedly every bachelor over 30 should be heavily taxed according to his income, and this tax should be used for the benefit of parents producing large families of healthy children. It must be made easier for the best types of parents to bring up their children.

The Effect of Mentally Defective Children on Race Decay.

Time is pressing, or much ought to be said regarding the relation between defective and mentally deficient and feeble-minded persons and race deterioration. There are many weak-minded people of varying degree at large; they are a danger both to themselves and the State. Without sense of right and wrong, often ill-developed, they are a constant cause of anxiety. Weak-minded girls quite commonly bring illegitimate offspring into the world, and others marry, in both cases almost certainly reproducing and perpetuating the parents' lack of mental capacity.

The education authorities are gradually making provision for the training and comfort of afflicted children in their work. In addition, many blind and deaf children are maintained in various residential institutions, and others are taught in special day schools. Cripple children are treated and taught in residential schools. Mentally defective children are accommodated in special day schools, in which the training is directed towards learning some

useful occupation. *Epileptic children* are sent to epileptic colonies, where adequate provision is made for their school instruction.

But these are makeshift arrangements, chiefly the result of philanthropy, and admission to these institutions is quite optional on the part of the afflicted people, whereas in most cases it should be compulsory. There must be powers whereby such of these afflicted persons as cause danger to the State may be placed under *permanent restraint* in well-organized and supervised institutions, where they would be safe from harm themselves, and unable to inflict it upon others. Cannot our profession bring powerful influence to bear on this matter, and press for legislation?

Overcrowding and Housing and Town-planning Matters.

Overcrowding is answerable for much of our physical degeneracy, and our profession would do well to take a more active interest in the housing and town-planning questions in our larger towns. More than 77 per cent. of our population is now urban, and the same care evinced by the more advanced Continental countries in town planning has not hitherto been shown in this country. Reforms are urgently needed in the social conditions of the poorest of our fellow-citizens. It is impossible to have strong bodies, or fresh, joyful, clean minds, when the days and nights are spent in squalid streets, and overcrowded, gloomy, sunless, ill-ventilated, filthy houses, such as many of our poorer classes are compelled or content to dwell in. No wonder the low-class but brightly-lit public-house proves an attraction. No wonder there is a lack of discipline, self-respect, and patriotic feeling in a considerable class of the rising generation. Much is being done to remedy this deplorable state of things both in Manchester and elsewhere, but if there is to be any chance for a large town to have the conditions necessary for health and strength in all its districts, or even in only its new districts, it can only be attained by the active work of the whole profession in co-operation with our health medical officers, and with the various educating societies and persons who have been striving to enlighten the public, and to obtain compulsory powers to effect these objects. The local authorities, and even Parliament itself, must be constantly impressed with the nature of, and need for, conditions of health in our towns; and it is to be hoped that the more intelligent and public-spirited will succeed in interesting the ratepayers at large in the maintenance of the conditions essential for the health and strength of the whole community. If Mr. Burns's Town Planning Bill be passed next year, the town councils will be able to insist on the provision of playgrounds and other open spaces in all new districts and the limitation of the number of houses in a district; but the town councils are not likely to use their powers at all fully unless backed up by that public opinion which we as a profession, on a subject such as this, are so well qualified to form and influence.

Societies and Associations working at Social Reform.

The various health societies whose object is to improve the condition of the people should be supported by our profession. The Manchester and Salford Sanitary Association is the oldest of its kind in the country, and has had much to do with many of the reforms which have been effected here during the last half century. How many of us take any active part in its work? Here is a pleasant field of enterprise for any of our younger members willing to labour in the great cause of physical regeneration.

There are many other kindred societies, all of which deserve our cordial support.

The beneficial effects of living under the ideal conditions provided by garden cities are strikingly shown by statistics from three well-known places. At Letchworth the average death-rate per 1,000 is returned at 4.81 and the infantile mortality at 38.4 per 1,000; at Bournville the figures are 7.5 and 80.2; and at Port Sunlight 8.0 and 65.4 per 1,000.

What has been done in Sweden by Efforts to Regenerate.

One of the most encouraging facts with regard to the possibility of restoring the health and strength of a nation is to be seen in what has happened in Sweden. Seventy or eighty years ago the Swedes were fast becoming a degenerated race, but they appreciated their condition

before it was too late. They reformed their licensing system, planned their towns so as to secure much vegetation and ample open spaces, and gave the youth of the country a sound gymnastic training on the system which is now recognized to be the best. They are now the finest race in Europe, and, what is most remarkable, the men of the towns, owing to the excellence of the details that have been observed in their planning, are, as a rule, as robust and as strong as those of the country.

The Evil Effects of Impurity on Stamina.

How seldom the voice of our profession is heard in discussions concerning public morality and the remedies for checking impure habits and tendencies. These prevail in every section of society. They are all the more deadly because more secret, more insidious, more insinuating, more winked at, than any other vice. They are a cause of much immediate and future degeneracy. The strength of the race and its ability to hold its own depend very largely upon the ascendancy of the good over the bad, and the return of our people to a right moral standard. I would confidently submit that instruction ought to be given to boys and girls on sexual matters, preferably by their parents, but as this seems impossible amongst the poor, it should be done by the school medical officer. Parents are silent on this subject; it is wrapped up in an obscuring mystery, which only tends to arouse the curiosity of the child. The result is that the lessons regarding our common nature are learnt from strangers, servants, or erring and ignorant school companions. Boys and girls should be instructed on sexual matters before leaving home for school; their confidence should be invited on any point of difficulty; there should be a frankness and openness with them, so that their trust may be gained and their secrets revealed. We teach our children not to lie and not to thieve, both of which by nature they are prone to do, but regarding sexual feelings, difficulties, and sins, which as surely are natural to them, we are content to leave them in utter ignorance, without any guidance, prop, or safeguard. A tactful warning concerning the effect of bad habits on health, followed by lessons on self-restraint and the needs of others, and on the advantages of play and work, will do no harm, but will place them on their guard. "For if the youth be grafted straight and not awry, the whole commonwealth will flourish thereafter." Too great emphasis on these topics is of course to be avoided, or the very opposite effects to those aimed at may be produced, as for the attainment of the desired result love and faith on the part of the child are requisite. The prevailing notion that human passion cannot be repressed without harm is false. As practitioners of medicine we cannot be too insistent on this point, though from knowledge gained from patients it is to be feared that advice fraught with the gravest danger is sometimes given. In the classic clinical lectures by the late Sir James Paget occur the following words, which should be indelibly written in every practitioner's mind:

Many of your patients will ask you about sexual intercourse and expect you to prescribe fornication. I would just as soon prescribe theft and lying or anything else that God has forbidden. Chastity does no harm to mind or body; its discipline is excellent; marriage can be safely waited for, and amongst the many nervous and hypochondriacal patients who have talked to me about fornication I have never heard one say that he was better or happier for it.

Effect of Venereal Disease on the Decay of the Race.

Intimately connected with the subject of natural deterioration is that of venereal disease, its prevention and cure. The prevalence of these diseases in their earlier stages is, to some extent, a gauge of the morality of the people; their ravages on men, women, and children subsequently are indications that effective treatment has not been adopted or carried out. Venereal disease is preventable; it is conceivable that it can be as surely stamped out as hydrophobia or plague, but this could only be effected with the assistance and whole-hearted co-operation of the profession, supported by the will of the people; but in adopting means to that end care ought to be taken that a definite deterioration of public morality is not involved. It is bad to have venereal disease, but it might be worse if it were escaped only by methods which rendered immorality safe and easy. Better far let us strive to eradicate it by effective

treatment on the one hand and by public education on the other, by the diffusion of the knowledge of what these diseases mean to the individual, the home, and the community, and how unnecessary it is to run the risk of acquiring them. The home, the school, the college, the church should be the media of this education. It is the prejudice against the frank discussion of these subjects, the unfortunate reserve and shyness that increase the difficulty. Venereal disease is much less prevalent in the army now than formerly. In 1860, for every 1,000 soldiers in the British army in the United Kingdom and India there were 1,053 admissions into hospital for venereal disease. In 1890 there were 196 admissions per 1,000 in the United Kingdom and 376 per 1,000 in India. In 1907 there were 71.9 admissions per 1,000 in the United Kingdom and 89.9 per 1,000 in India. This remarkable improvement is largely due to an increase in temperance in the army during recent years; but it is also due to better barrack accommodation, better clothing, better sanitation, more effective treatment. The army surgeon is more thorough, practical, and successful in his treatment of venereal diseases than is the civil doctor; it is, moreover, the custom for the former to deliver lectures to the troops under his charge on matters of personal hygiene, and concerning the dangers to himself and his country that a soldier incurs who practises illicit connexions. There are no statistics to prove, but there are ample reasons for believing, that there is no such striking decrease of venereal disease amongst our civil populations during recent years as has occurred in the army. It would be well if similar methods of diffusing knowledge could be adopted by civil practitioners.

It is interesting to note how foreign armies suffer in comparison from these diseases. In 1906 29.1 per 1,000 admissions took place in the French army, 18.8 in the German, and 158.91 in the United States army, whereas 68 per 1,000 admissions occurred in the United Kingdom. Thus in Germany and France, where legislation has provided for the supervision and examination of prostitutes, the number of admissions is three times less than in Great Britain and eight times less than in the United States. It is not, however, clear that this diminution in the disease is due so much to police supervision as to the methods of prophylaxis which are practised by German and French soldiers. In my experience the disease is so frequently spread by clandestine intercourse which no legal enactments would touch, that it is not to the official registration of prostitutes in certain towns for which the Contagious Diseases Act now repealed provided, that we can look with hope (for if legislation is to do any good it must apply to the whole community, and to men and women alike); nor is it to the notification of these disorders, which would only be an encouragement to "quacks," and hence to a greater inefficiency in treatment; but it is to the spread of information to men and women, youths and maidens, of all grades of society, about the prevalence and far-reaching consequences of such diseases; to the enforcing of the laws that already exist against solicitation in their application to both sexes, and in the provision of gratuitous treatment in general hospitals.

An international conference was held in Brussels in 1899 to consider prophylaxis in syphilis and other venereal diseases, and the foremost recommendation was a general dissemination of knowledge and information regarding the significance and prevention of these diseases—by giving instructional lectures to specially selected audiences, foremost of which should be university students, so that afterwards they could continue to spread sound knowledge on the subject.

With all respect, I would say that year by year more and more convincing facts come before me which prove that our medical schools are too sparing in their lessons on the treatment of venereal disease. The subject is regarded as a nasty one and not deserving much attention; there is no provision for the admission or treatment of these cases in the majority of general hospitals, from many of which they are excluded. And hence young practitioners are launched ill equipped to grapple with the difficult and interesting problems connected with these complaints, which have, perhaps, greater and more baneful influences on national health and upon fertility than any other diseases. Men are constantly passed as cured of gonorrhoea when still infective, and victims of syphilis

are assured of their immunity either because their symptoms have gone or because they plead to be told so. There is no royal road to the cure of these diseases, and the insistent appeals of the patient to be told he is cured and can marry must be resisted. It requires both tact and firmness to convince the patient of the necessity of and to carry out long-continued and effective treatment, but success can be attained. The happy results following the treatment of cases of syphilis under my care a quarter of a century ago, many of whom are now in happy homes, surrounded by healthy children, justify our assurance in the ultimate cure of all, except very exceptionally severe cases of syphilis, and amply repay any extra trouble that these cases often require. Twenty-two years ago I read a paper before this society entitled *The Evil Effects of Imperfectly Treated Early Syphilis*, and later experience has more than justified the conclusions that were advanced on that occasion. Imperfect treatment means increasing physical deterioration, an enormous loss of health, and a considerable mortality to the country—a mortality infinitely greater than statistics show, because, as you know, the reports of the Registrar-General by no means give an accurate statement of the number of deaths due to syphilis in this country.

There are gross men of repulsive habits who come before us with these diseases for whom little or no sympathy can be aroused; but oftener it is the young man or girl with the saddest history towards whom our hearts go out in boundless sympathy. The fitting of such as these to take their place again in life is no inglorious task, for although marriage must often be long delayed, it can take place with safety and with assurance.

Effect of Universal Military Service on the Stamina of the Race.

Before concluding, attention must be called to the immense advantage that would accrue to the health and stamina of the race if a system of universal military training were enforced. This is necessary for national security and independence, both of which in the last resort depend upon the possession of adequate power to resist hostile attack. It is desirable also from the point of view of national health, and national character. There must be something wrong with the "tone" and the sense of justice and righteousness of a nation, when, out of the millions available, it is impossible to find a paltry 300,000 men willing to undergo the limited amount of training in the Territorial Force that is considered necessary to enable them to take an effective part in the defence of their homes and country. The medical profession has responded splendidly to the call—but the majority of the men of the nation hold back. What a contrast there is between the "prating" and "screaming" about the glory of the British Empire, between the "jingoism" of Mafeking Day, and the abject appeals to be seen in the press every day to induce men to join the Territorial Army, which, though in existence a year, is little more than half its authorized strength. In this public apathy to the well-being of the country, in this indifference to national honour, is a latent sign of decay and degeneracy. The existence of a State depends upon the willingness of its citizens to prepare themselves for its defence.

In the days of Roman greatness, before signs of degeneracy appeared, every Roman was a soldier and every soldier was a citizen. It has been so in England, and when it was so the name of England was never more respected and feared abroad, nor, considering the period, were the liberties of Englishmen ever more secure than when every able-bodied man in England was trained to the use of arms and thus prepared to effectually defend his country from the enemy at her gates.

On every side we hear objections to *compulsion*, and to the cost that its adoption would entail. The estimates for the latter are grossly exaggerated, and compulsion is unfortunately necessary in many less important walks of national life. That its adoption would be likely to plunge our country rashly into war is absurd. If every man were both soldier and citizen, liable himself to be called out in case of need, no Government or nation would lightly incur such a grave responsibility. Untrained men talk glibly of the martial attitude they would assume should hostile invasion ever occur, forgetful or ignorant of the disastrous consequences that would result if as civilians they implicated themselves in any act of war. Owing to our insular position, many of the horrors of war have long been

forgotten by the English people. It can be inferred, however, what would happen to our civil subjects, if foreign soldiers landed on our shore, by the behaviour of the German army to a hostile French civil population during the Franco-German war. No mercy was shown, but plunder, pillage, summary executions, burning of villages—in fact, the severest form of punishment was accorded, not only to civil offenders themselves, but whole communities were held responsible for individual actions.

The men who are so insistent on the necessity for compulsory training are not "alarmists," but calm, cautious, level-headed, experienced men, many of them England's most trusted sons. What is it they ask? It is simply this: that *all* our fellow-countrymen, physically fit, between the ages of 18 and 25, should be made to undergo four months' continuous military service, and subsequently to serve for four years in the Territorial Force, during which latter period two weeks' camp training only in each year would be necessary. What could be better for the physique and morale of the nation than this? It is proposed that the training should take place under canvas, not in barracks; that each man should be developed to his best by suitable exercise, food, and clothing; that he should be taught to shoot, to march, to ride; to think and act independently; to yield ready and implicit obedience to orders; to practise self-respect and good comradeship. During this time also each man would be under the care of a good doctor, specially trained, to look out for and correct the weaknesses which cause deterioration. A training such as this would have a striking influence on every class. "Duke's son and cook's son," by more intimate acquaintance, would learn a higher respect for each other. Our industries would flourish, because men engaged in them would be trained in habits of obedience, self-respect, and precision. "Overcrowding" and "our slums" would soon be gone, because, as a result of a couple of generations' training of our male population in the open air, a sounder public opinion would result, strong enough to enable our municipal authorities to remedy these crying evils.

I have watched over and over again the effect upon recruits of their first three months' service with the colours. It has been marvellous. The lank, ungainly, casual ill-developed loafer becomes an alert, strong, intelligent, orderly, self-respecting man. The good effect of even two weeks' training in camp on general health and physique is known to many of you. What would be the effect upon the character, the manliness, the physique, the patriotism of the nation if every able-bodied young man was compelled to train for the safety of his country in the open air for four months? England's sons now are of the same race as their heroic forefathers. The same blood runs in their veins as that which flowed on many a battlefield in the earlier days of Britain's history. The greatness of our country and its immense reserve of power is not denied. Will our sons prepare themselves to defend it or wait for defeat (which would mean destruction as a nation) to awaken them from lethargy? Cannot we influence the nation on the importance of this training, not only as necessary for maintaining the place and honour of Britain amongst other nations, but as essential for the improvement of our national health?

The vital question only remains: Can we as a profession take concerted practical steps to stem decay among our fellow countrymen on the one hand and to foster sound racial development on the other?

While sociologists discuss, the canker grows. While medicine works some triumphs, deterioration is spreading far and wide.

Must degeneration necessarily increase? Is our race so exhausted by the excitement and overstrain of the last few generations that she cannot recover? No; she can and will do so, as soon as the enlightenment of every class is seriously undertaken.

A lofty estimate of family life must be restored as a foundation for the re-establishment of our national life and strength.

In such an effort our part should be no ignoble one. The issue of a battle depends not alone on the intelligence of the commander, but to some extent upon the weapons he employs. In the great campaign against decay the profession of medicine should be one of the most formidable weapons. Her members have unequalled

privileges. They penetrate the closed door; they are the recipients of the secrets of many a forlorn and stricken heart. Their voices find thoughtful listeners, not only in the councils of the wise, but among those whose perplexed and troubled minds would be deaf to any other guidance.

Do we shrink from the task, because we are not invited to undertake it, because the public do not realize the danger, because the exigencies of life are such that we have neither leisure nor means to fight in the battle; *or are we afraid?* I think not. Once convinced that the work must be done, our profession will be true to her traditions and resolutely wage war against ignorance and vice, giving no thought to public estimate or gain. Nay, her members will, with inexhaustible faith in the power to right much that is wrong, join heartily with those already in the field, those who have thrown their influence and their service into the scales, so that by the weight of combined opinion and by strenuous effort the balance will be found on the side of such judicious thought and fearless action as shall eventually bring about a greater and more lasting strength in our national life, health, and habits.

May I sum up my simple reflections in a sentence? He does a great deed who heals the sick; but the watchful physician who inculcates sound habits amongst a people performs a nobler task.

A Lecture

ON

FISTULA BETWEEN THE STOMACH AND BILE PASSAGES.

WITH REMARKS ON OTHER INTERNAL BILIARY
FISTULAE.

DELIVERED BEFORE THE LONDON MEDICAL GRADUATES'
COLLEGE AND POLYCLINIC.

BY A. W. MAYO ROBSON, D.Sc., F.R.C.S.

My reason for selecting this subject was a remark recently made by a medical friend at a consultation we held on a case of biliary fistula communicating freely with the stomach. When I told him that his was the fifth case of biliary gastric fistula that I had personally seen, he asked me why I had not reported the cases, seeing that the literature on the subject in the ordinary textbooks was so meagre that he had been unable to get any trustworthy information on it. As a matter of fact, however, there is a chapter on fistulae in my work on *Diseases of the Gall Bladder and Bile Ducts*, though it does not deal specially with fistula between the stomach and biliary passages.

Fistulae communicating with the surface, or so-called external fistulae, are so obvious that no skill is needed in their diagnosis, but the same cannot be said of the internal or intervisceral fistulae, which, though far from uncommon, are often exceedingly difficult, or at times even impossible, to diagnose. Though they may result from the progress and breaking-down of a malignant growth, from ulceration of the stomach, duodenum, or colon, or from hydatid disease, yet the most frequent cause of internal biliary fistulae is gall stones. It is not my purpose in this lecture to consider the question of external fistulae, or of internal fistulae due to growth, but to give some of my experiences of those occurring between the biliary channels and the gastro-intestinal canal.

The channel of a fistula may be either direct, in which the two organs immediately communicate, or indirect, owing to an abscess having formed and burst into contiguous hollow viscera, which then communicate indirectly through the abscess cavity.

The former, or direct fistulae, are for the most part due to gall stones producing ulceration in the gall bladder or bile ducts, and as the ulceration advances towards the peritoneal surface a local peritonitis ensues and causes adhesions to a neighbouring hollow viscus. The ulceration continuing, a communication is established between the two channels.

Although the formation of an internal fistula is at times