THE PRIVATE PRACTITIONER AND PREVENTIVE MEDICINE*

BY

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Nothing is more difficult than to determine the beginning or the end of great events. All we can say to-day is that we have been the witnesses of the greatest epoch of advance in the science and art of medicine of which there is any record in the history of mankind. Not the fifth century B.C. in Greece, not the great thirteenth century in Europe, not the Renaissance itself, can show a similar acquisition of new knowledge and its application as occurred in the hundred years following 1832. We can say even more: in no previous age has there been such growth of the conception of preventive medicine.

I propose to offer for your consideration some illustrations of the pioneer part which the British medical practitioner has taken since 1832 in the grand historical progress of prevention in England. Before doing so, however, it is necessary to bear in mind the social background of his ideas and his labours. Since the Reform Bill this country has been undergoing a gradual transition of society towards democracy, accompanied by ever-widening humanity, education, and enfranchisement. It has reaped the harvest of the industrial revolution and its aftermath—its unequally shared but enormous wealth, its productive inventions, its urbanization, and its burden of physical impairment; human life has been rendered increasingly tolerable to a population rising to forty millions in an island where fourteen millions had found it hard to earn a livelihood before. This period has witnessed the results of the philanthropic effort of four generations to construct and inspire a vast edifice of State control by the people themselves, passing steadily from central to local government and from aristocratic to democratic institutions. It has seen a rapid development of intercommunication to and from all parts of the world, giving the people an altogether new sense of mobility, and exporting and importing ideas, deeds, and merchandise throughout mankind.

In addition, there have been two factors which have exerted an imponderable but dominant influence in changing the thoughts and conduct of the English people; first, the astounding expansion of science and the application of the scientific method; and, secondly, the slow but sure oncoming of collectivism and the co-operative habit, and the end of Individualism as a national policy. We live under conditions derived from the deductive logic of these events. Yet the medical man is an *individualist* and he is educated by an *inductive* method. It is hardly less surprising to discover that he has been slow to accommodate himself to such momentous transitions than it is to awaken to the fact that he himself has, all unconsciously, been a substantial contributor to this evolution. Without losing his individualism and by the way of induction he has been the builder of State medicine and has opened wide the gates of prevention.

When we reflect upon modern preventive medicine we naturally think of the change and improvement which has occurred in our external environment. We think of the great pioneers and their work for the provision of public and wholesome water supplies, for the isolation of the sick, the removal of nuisances, the reform of housing, drainage, sewerage and sewage treatment, the inspection of food, the Factory Acts, and vital statistics. Looking back we see what they did, and are more grateful than

their contemporaries to Chadwick and Simon and Farr, to Bentham and the Mills, to Lord Grey, to Owen and Cobbett, to Lord Shaftesbury, and to the statesmen who took occasion by the hand. When we reflect again, our minds turn to the masters of physiology who illuminated the nineteenth century—to Helmholtz, Claude Bernard, and Carl Ludwig; they were followed by the masters of pathology, Virchow, Pasteur, and Koch. Perhaps we remember even the great clinicians who created and led professional opinion, Bright, Addison, and Hodgkin—the Guy's trinity—Gull and Jenner, Osler, Allbutt, and Barlow; and we wonder whether, after all, it is not the work of these eminent men which laid the foundations of prevention. Lastly, we are learning to see that preventive medicine owes an irredeemable debt to Edward Jenner, to the anaesthetists Morton and Simpson, to the antiseptic principles of Lister, to the discoverers of the causes of disease, such as Pasteur, Koch, and Manson, and to the "immunizers" who followed them.

But a house does not consist only of foundations or of corner-stones any more than an effective army consists only of generals and army council regulations. There is nothing more significant or more illuminating than the constructive service which has been rendered in this great story by medical practitioners. It is they who have made the bricks, found the road, explored the facts, carried on the fight, and educated the people in a way of life.

I submit for your consideration four illustrations. The eighteenth century practitioners provided the dynamic example, and proved themselves the enlightened followers of Mayerne, Glisson, and Sydenham, of Willis, Lower, and Mayow. What they did was really "prodigious," to use Sir Walter Scott's word. "Human experience, which is constantly contradicting theory, is," said Dr. Johnson, "the great test of truth," and it proved to be so in the wonderful and unexpected record of the endeavour of our eighteenth century forerunners. They searched into the circumstances of disease and related it to environment; they introduced medical notification and hospital isolation; by their investigation of factory conditions they initiated industrial welfare; they stemmed the rising tide of spirit drinking; they began the reformation of midwifery, and were the first to attack the problems of child sickness and mortality; they established dispensaries and staffed the new hospitals; their systematic support of vaccination instituted the practice of immunity; and their scientific observation was the beginning of British epidemiology. The medical practitioners of the nineteenth century followed their leadership, and entered a kingdom of which they had opened the doors.

CLINICAL WORK OF PRACTITIONERS

My first illustration is the clinical work of English practitioners since 1832, which consolidated the foundations of modern preventive medicine. Sir Humphry Davy, Beddoes, and Faraday had by experiment prepared the path for the early anaesthetists, Hickman, Collier, Warren, Morton, and Simpson, who in their daily practice established the effectiveness and safety of anaesthesia, thus making possible the rapid advance of surgery. It was in their clinical practice that A. P. Stewart of Glasgow differentiated typhoid from typhus; Sir Jonathan Hutchinson elucidated surgical pathology; Lister proved the validity of antiseptics; James Mackenzie undertook the intensive study of cardiac disease, the energy of the heart muscle, and the effect of digitalis on auricular fibrillation; Lauder Brunton evolved his therapeutics of the circulation; Thackeray elucidated the syndrome of brass-founders' ague, and dust diseases; and Sir Andrew Clark and Sir B. W. Richardson developed the place of personal hygiene in therapeutics and preventive medicine.

* Presidential Address to the Section of Public Health at the Centenary Meeting of the British Medical Association, London, 1932.

These were not primarily laboratory men; they accomplished their work at the bedside and in the clinic. They followed in the footsteps of Fothergill, Huxham, Heberden, Withering, and John Hunter, but they possessed or invented instruments of precision beyond their teachers. Indeed, one of the particular services of the nineteenth century practitioners was the introduction of new means of measurement and methods of physical diagnosis.

Other men worked in different directions. Murchison differentiated fevers, Budd of Bristol indicated the means of preventing their spread and confirmed the infectious nature of typhoid and pulmonary tuberculosis, Greenhow of North Shields determined the cause of silicosis, Snow demonstrated the spread of cholera by water, Ballard in Islington began to formulate the causes of epidemic diarrhoea, Michael Taylor of Penrith first established the conveyance of typhoid by milk, Hugh Owen Thomas and Robert Jones laid the foundation of orthopaedics, Priestley Smith of Birmingham and Francis Warner began school medical inspection, and Scott has described the occupational cancer of paraffin workers. I name a score, but I could find a hundred medical practitioners who, within the century, have pioneered in extending the fields of preventive medicine. In every branch of medicine and in every county of England practitioners have placed their names permanently upon a roll of fame as preventive benefactors and explorers.

PRACTITIONER AS A MEDICAL OFFICER

My second illustration is to be found in the practitioner as a public health officer. When in 1887 Sir Henry Acland, the President of the General Medical Council, looked back fifty years this is what he had to say:

"Any system of medicine which should ignore duty to the masses as well as to the individual is now no medicine at all; yet some here can recall the day when the prevention of disease was considered almost outside the province of an orthodox medical man."

But something happened, and it was this:

"The administration of the new Poor Law which had come into operation in 1834 directed the attention of the country, especially by its improved system of medical relief, to the insanitary condition and the terrible mortality which prevailed among the poorer labouring classes. These existed in towns and villages, in cellars and lodgings and cottages alike. The nation began to feel that moral as well as physical degradation resulted from unhealthy lives. *Medicine became preventive as well as curative. The general practitioners throughout the whole country became connected with a State system of organized medical observation and relief.* . . . A new conception of medicine had arisen throughout the English-speaking race."

These strong though forgotten words were not extravagant, for under the Poor Law of 1834 the parish doctor of a former day had been replaced by district medical officers, who were medical practitioners devoting part of their time to public duties. They covered the country completely, and their public duties for the poor were preventive and not only curative. Even the British Medical Association declared as early as 1837 that their responsibility embraced the whole of medicine:

"It should unite, therefore, an acute perception of the incipient stages of disease with well-directed efforts for its prevention, accompanied by the most diligent and scientific treatment."

We are all aware that the medical history of the Poor Law from 1832 to 1929 is a chequered history, and that neither doctor nor patient always received his due, but the fact remains that 3,700 medical practitioners were brought into the service of the State for the purposes of preventive medicine.

Yet this was not all. For when the Poor Law Commission began its work, Chadwick, its secretary, found

it necessary to secure the services of three medical practitioners to travel through England with a view to investigating the magnitude of the problem of the sickness of the poor and formulating the means of its solution and non-recurrence. Dr. Neil Arnott, Dr. Southwood Smith, and Dr. James Kay were chosen, and their pioneering and constructive work was presented to Parliament in 1842 in Chadwick's monumental *Survey into the Sanitary Condition of the Labouring Classes of Great Britain*, which led to the Public Health Act of 1848 and the organization of the Public Health Service.

Following the example of the Poor Law Commission, the Board of Health of 1848 and the Privy Council in 1855 also called for the aid of medical practitioners in this new service from 1848 to 1865. I have a list of more than thirty of them who worked under Chadwick or Sir John Simon before permanent whole-time medical officers began to be appointed as civil servants (for supervision of vaccination in 1865 and for general purposes in 1869). For the first ten years of the official career of Sir John Simon he had no whole-time medical colleagues. He retained the services of practitioners, and his classic reports contain a record of their enduring work. In passing, I may remark that while Chadwick was the moving hand in the appointment of the Royal Commission of 1843, the still greater Royal Commission of 1869 was initiated by the British Medical Association at the instigation of Dr. Rumsey of Cheltenham. It was this Commission that proposed a Ministry of Health, which arrived fifty years later.

OFFICIAL DUTIES OF EVERY PRACTITIONER

Here we have the remarkable story of how the profession of medicine itself took a primary hand in suggesting the intervention of the State in preventive medicine. But it was not enough to choose a selected few medical practitioners to be the public exponents of preventive medicine, as it was not enough to appoint medical officers of health from 1847 onwards. I turn naturally to my third illustration in the action of the State in imposing upon every registered medical practitioner definite statutory duties in regard to prevention. This began in 1858 with the Medical Act, and has continued to the present day. No practitioner can escape; he may like or dislike preventive medicine, but he is required by law to fulfil its obligations. For instance, every medical practitioner must certify birth and the cause of death, must notify cases of infectious diseases, be skilled in vaccination, and in the diagnosis of mental disorders. There are no fewer than forty Acts of Parliament which prescribe the powers and duties exercisable by every medical practitioner in regard to inspection, examination, certification, ascertainment, diagnosis, compensation, insurance, industrial poisoning, dangerous drugs, and childbirth, every one of them with a view to the practice of preventive medicine.

THE PRACTITIONER IN INSURANCE PRACTICE

My fourth illustration is concerned with national health insurance. Here is the latest form of the contract practice which originated in the eighteenth century, and by which the practitioner provided, at reduced fees, medical treatment for those immediately above the pauper class by means of "sick clubs," managed by lay associations in the interest of their members. The health provisions of the Insurance Act of 1911 were passed by Parliament for the prevention of disease as well as for its treatment. A moment's reflection will make apparent its preventive value; 15,000 medical practitioners have voluntarily joined in a co-operative scheme of the profession, the friendly societies, and the State for the medical supervision of

fifteen million people, more than a third of the whole population, inclusive of the wage earners of the country. These insured persons come to their chosen doctor, frequently and undeterred, at the beginning of sickness, when disease may be most effectually controlled. The scheme provides for medical advice and medicines, for prevention and treatment within the scope of the practitioner's skill, and for rest during incapacity. It actually furnishes these advantages to some seven million persons annually.

For the profession, too, the arrangement has its convenience: no bills, no accounting, no collection of fees, no bad debts, and adequate professional safeguards—a very different situation from the old club practice. In addition to the direct advantages of the scheme, it provides an inducement to the medical practitioner to keep his patient well. It cannot be doubted that such a system is preventive of disease. The early detection of tuberculosis, of infectious disease, of rheumatism, dyspepsia, bronchitis, renal disease, anaemia, and minor maladies in a vast number of persons every year, contributes substantially to prevention; medical advice on personal hygiene operates in a similar way. Of fifty million approved prescriptions many at least ought to be preventive in effect; periods of rest during incapacity are conducive to prevention as well as healing; and the additional benefits for dental and ophthalmic treatment, for appliances, nursing, and convalescence are preventive in purpose and result. I have no doubt that health insurance is one of the most effective instruments of preventive medicine which we possess.

The criticism which is sometimes heard, that a "gulf" exists between preventive medicine and curative medicine, is not, in practice, substantial, nor can it be sustained; the two are not separable. All conditions and forms of healing, whether medical, surgical, or dental, are preventive in educational value and in the avoidance of worse ills; they postpone the event of death. Nor is there a gulf between ordinary clinical practice and State medical services. They are complementary, interdependent, and in a civilized community essential to each other. Public health activities are a natural and inescapable product of the practice of medicine, and began in England after the Black Death in 1349. Of course, there have been misunderstandings, generally due to misapprehension or lack of information, which are now happily disappearing. The British Medical Association itself has declared that "as social systems become more complex, corresponding changes in the conditions in which the medical profession does its work are inevitable."

In conclusion, let me remind you that the Association from 1833 to the present year has been engaged, in ever-increasing degree and volume, in the fundamental work of preventive medicine. In 1833 it began its unflinching adherence to the practice of vaccination and established methods of immunity, and to insistence upon the accurate and universal certification of the cause of death, two far-reaching principles which have exerted profound and enduring influence, not only in England, but throughout the world. In 1835 it gave support to, and furnished safeguards for, the creation of the Poor Law Medical Service, and in 1847 it began its consistent advocacy of a Public Health Service. Since 1858 it has steadily upheld the Medical Act and its amending successors, and has claimed, and assisted in securing, adequate training and fair dealing for the registered medical man, the midwife, and the public health officer. It has been a great thing for England and for English medicine that its principal association of medical practitioners should stand for the high competency and the strict integrity of the medical profession, and be strenuously opposed to every kind of subterfuge. The foundation of any medical

service, private or public, must be the medical practitioner. He is its anchor, its pivot, its instrument. If he be competent and trustworthy, it has its first surety of efficiency; if he be ill-equipped, ineffective, or unreliable, it must fail. In securing and encouraging him, in husbanding his resources, and safeguarding him in the discharge of his public and private duty, the Association renders invaluable aid to preventive medicine.

REMOVAL OF THE PROSTATE

INDICATIONS AND METHODS*

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INDICATIONS FOR PROSTATECTOMY

The most important indication for removal of the prostate is obstruction. In most cases the retained urine is not infected, but occasionally infection is present, therefore these cases must be considered separately.

Operation is indicated for aseptic retention (1) where there is complete permanent retention, (2) where intermittent attacks of retention alternate with periods of being able to pass urine, (3) in cases of chronic vesical distension with overflow dribbling, and (4) in cases in which there is more than fifteen ounces of residual urine. These conditions are always a definite indication for operation irrespective of the age of the patient.

Should the obstruction be in an earlier stage, the patient's age may be considered when discussing the advisability of prostatectomy. A slight but progressive amount of retention would indicate operation in a well-preserved man of 60, but not in a debilitated patient of 75 or 80. If the patient is comparatively young and healthy, one should not wait for the development of serious or dangerous symptoms, but should advise an early operation if the obstruction is progressing. It is far better to operate early on such cases than to wait till their renal function is impaired. At the same time one should be certain that the amount of obstruction is increasing before advising an early operation, and I usually advise the patient to return in about six months to see if his residual urine has increased. I advise prostatectomy in a man of 60 who has more than two ounces of residual urine, or in a man of 70 with more than from four to six ounces. If the patient is over 75, I do not suggest operating for anything less than ten to fifteen ounces of residual urine.

If the urine is infected, the conditions are entirely altered. Infection is usually the result of instrumentation, but occasionally one finds pus and organisms in it before a catheter has been passed. Spontaneous pyuria is, as a rule, due to complication such as stone. It may also be the first sign of a vesical neoplasm. A new growth of the bladder does not bleed so easily where residual urine is present, as the residual urine acts as a cushion, which protects the growth from injury during micturition. Spontaneous pyuria is much more common in malignant than in benign growths of the bladder; it is therefore an urgent indication for cystoscopy.

If the patient has been catheterized and has become infected, it is impossible to cure the cystitis while there is residual urine; also there is always the risk of the infection spreading up to the kidneys. I believe that in most cases the kidneys become involved through a direct convection of infected urine up the ureter. In many cases the vesical orifice of the ureter becomes incompetent and fluid injected

* Read in opening a discussion in the Section of Surgery at the Centenary Meeting of the British Medical Association, London, 1932.