

Something About Oliver Goldsmith and Oliver Wendell Holmes

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SOMEONE (it doesn't matter greatly who) said of Shakespeare: That he did two things. First, he created a number of personages, gave each an individuality composed of certain mental, spiritual and moral elements; and, second, he set up from the wide world's stage an environment he would have them operate in, and then called them into action. Knowing as only Shakespeare knew their inevitable doings, he stood back, as it were, and wrote down the results. These written records are his plays. Most of the myriad types of human beings, in one environment or another, passed before his searching eye, and were written down.

One feels like wishing that the great dramatist had created one more type, a medical graduate equally endowed by nature for medicine and the muse. Which side would predominate? Or might not the two blend; the poetic instinct infusing light and imagination into the matter and abstractions that make up the life cycle of the general practitioner. We have a goodly number of doctors who became great poets. So far indeed have their poetry overshadowed their medical skill that often in their biographies only do we discover they ever took a medical degree. Whether on the other hand, great poets have become, equally, doctors of standing is another matter. A fair amount of success attends the making of a doctor; the making of a poet bears no such happy results. The true note of poetry will break through any barrier, and whether it is sung by the plough boy or the scholar it is essentially the same.

Dr. Osler, in his book, *The Alabama Student*, tells of a question put by Dr. Oliver Wendell Holmes at a dinner given to a very distinguished gynaecologist: which would give the most satisfaction to a thoroughly human and unselfish being, of cultivated intelligence and lively sensibilities, to have written all of Shakespeare's plays or to have snatched from the jaws of death hundreds of fellow beings, and restored them to sound and comfortable existence? The gynaecologist's answer is not given. An editor commenting on the question afterwards said that no one could answer it so well as the Autocrat himself; and he asked from which he derived the greater satisfaction; the Essay on puerperal fever, which probably saved more lives than any individual gynaecologist, or his poem, *The Chambered Nautilus*, which had given delight to many thousands. Holmes saw the editorial, and sent the following interesting reply, under date of January 21, 1889:

I have rarely been more pleased than by your allusion to an old paper of mine. There was a time certainly in which I would have said that the best page of my record was that in which I fought my battle for the poor poisoned women. I am reminded of that essay from time to time, but it was published in a periodical which died after one year's life, and, therefore, escaped the wider notice it would have had if printed in the *American Journal of Medical Science*. A lecturer in one of the great London hospitals referred to it the other day and coupled it with some fine phrases about myself, which made me blush either with modesty or vanity I forget which.

I think I will not answer the question you put me. I think oftenest of *The Chambered Nautilus*, which is a favourite poem of mine, though I wrote it myself. The essay only comes up at long intervals. The poem repeats in my memory, and is very often spoken of by my correspondents in terms of more than ordinary praise. I had a savage pleasure, I confess, in handling those two professors—learned men both of them, skilful experts—but babies, as it seemed to me, in their capacity of reasoning and arguing. But in writing the poem I was filled with a better feeling—the highest state of mental exaltation and the most crystalline clairvoyance, I mean that lucid vision of one's thought and all forms of expression which will be at once precise and musical, which is the poet's gift, however large or small the amount or value. There is more selfish pleasure to be had out of the poem, perhaps a nobler satisfaction from the life saving labor.

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Oliver Holmes and Oliver Goldsmith—the American and the British Oliver—have sometimes been compared. Similarity probably ends with the consideration that they were both poets and both doctors. Holmes was a brilliant conversationalist, a wit and social idol, all of which poor old Goldsmith was not. The latter was the greater poet; the former had the more practical vision, the more stable mind and was much the greater scientist. Goldsmith's scientific knowledge was but an incident in his life used under pressure, when he was obliged to turn out something on natural history and in which the question of his bread and meat played a more important urge than the exactness of his observations or his fondness for the work. His work on natural history, we are told, abounds in errors. Having his attention drawn to some of the most palpable ones gave him little concern; they could go the "primrose path," for such a work was not the offspring of his choice. It was born out of wedlock; for his real love was poetry, and on this child of his big heart and fine fancy he lavished all the affections of his soul. The best he would do for the illegitimate offspring of science was to clothe it in the fine raiment of his pure literary style, and so well did he do this that the blemishes of the infant were successfully concealed, or at least forgiven.

That Goldsmith had a medical degree is generally admitted. He was regularly enrolled as a medical student at Edinburgh for two years, and from here he went to Leydon to pursue his studies. His degree was taken in Leydon. He was true to the Goldsmith type in the line of action he picked for himself on the completion of his studies. At the time when the normal graduate would think of practice, or further study, or specialization, Dr. Goldsmith took up his flute, and carrying his whole wardrobe conveniently upon his back, set out on foot on a sight seeing tour of Europe. The use he made of his travel experiences in his poem, *The Traveller*, is almost household knowledge.

He announced himself a doctor on his arrival in London, and while members of his famous club are on record as having cracked jokes, at his expense, on his knowledge, or lack of knowledge of physic, there seemed no question of his right to the title Doctor; and it was as "Dr. Goldsmith" he was referred to in the press reports, by his staunch friend, Dr. Johnson, and other members of the club. It would seem, therefore, that we must give him formal admission to our ranks; but, having done so, there is little to add in the way of placing any measure of fame on the medical exploits of Oliver Goldsmith. Once or twice during his life he made a gesture towards medical practice in London. But his patients were poor and dubious about his skill, and the "draggle-tailed

Muses" were ever calling him back to where he belonged. His last medical feat was insistence on treating his own case. He carried on with a perfectly normal amount of disaster until Burke and Johnson tried to save him from himself by calling a real doctor. Perhaps nothing could have saved him. He was then a broken down prematurely aged man, probably suffering from Bright's Disease. He was laid to rest in the churchyard of the Temple in an unmarked grave long since lost and forgotten. Even Washington Irving, who wrote a most sympathetic *Life of Goldsmith* finds little to tell of the effects of his passing upon the members of the club. Burke, he says, burst into tears, and Reynolds laid by his brush for the day. But the unmarked grave, the absence of any public statements by the intellectuals composing the famous club show a strange indifference to the memory of one who with all his faults was, in the words of Dr. Johnson, "a very great man."

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It might be an interesting study how far the incident of birth and environment influenced diversely the work and lives of the two Olivers. The placid, "happy homes of innocence and ease" of Goldsmith's rectory home in Ireland was not likely to develop any lurking elements of the practical in a mind already overflowing with dreams. Consequently, he dreamed, and, contrary to Kipling's dictum, proceeded to make dreams his master.

Oliver Wendell Holmes was born at Cambridge, Mass., in 1809. His father was a Calvinist clergyman and a man of some literary ability. He graduated in arts and medicine at Harvard, then studied in Paris under the renowned Pierre Alexandre Louis and other oft quoted men of that period. Some sketches from his papers on his old professors I am tempted to give so as to bring before our minds the able men who taught in l'Ecole Medecine in those days:

Leave the little group of students which gathers about Larrey, and follow me to Hotel Dieu where rules and reigns the master surgeon of his day, the illustrious Baron Dupuytren; no one disputed his reign—some envied his supremacy. Lisfranc shrugged his shoulders, as he spoke of "ce grand homme de l'autre cote de la riviere." Dupuytren spoke in low even tones with quiet fluency, and was listened to with that hush of rapt attention which I have hardly seen in any other circle of listeners. He dominated those around him in a very remarkable manner. As for Lisfranc, I can say little more of him than that he was a great drawer of blood and hewer of members. I remember his ordering a wholesale bleeding of his patients, right and left, whatever might have been the matter with them, one morning when a phlebotomizing fit was on him. I got along as far as that with him, when I ceased to be a follower of Mons. Lisfranc. Velpeau, coming to Paris in wooden shoes, starving almost, raised himself to great eminence as a surgeon and author, and at last obtained the professorship to which his great talents and learning entitled him. A good sound head over a pair of wooden shoes is a great deal better than a wooden head belonging to an owner who cases his feet in calf skin.

Of a large galaxy of famous men the one who left the deepest impression on Holmes was Louis. "Louis," he said, "changed the indefinite to the definite. Modest in the presence of nature, fearless in the face of authority, unwearied in the pursuit of truth, Louis was a man whom any student might be happy and proud to claim as his teacher and friend."

From the great French schools of that day, Dr. Holmes brought back to America a mind well trained in the Louis method to observe, to classify and correlate clinical evidence, so that his conclusions, definite and clear, should rest on the rock bottom of objective truth. Educationally, he was probably the best equipped doctor in the United States. Much was expected of him. But, like Sir James Barrie, he harbored in his breast a "M'Connachie," who partly over ruled the "dour and practical and canny" of his nature, and divided his energies between the Muses and Medicine. History holds an honored place for him in medicine; but it is in the field of literature and poetry most people linger to drop a sprig of laurel on his monument there.

In his career in medicine, Dr. Holmes' two chief performances were his long professorship of anatomy and physiology at Harvard, and his epochal paper on child-bed fever. As a teacher of anatomy, he was the idol of his students. A distinguished former pupil of his, commenting on the teaching qualities of his old master said: "Holmes made the dry bones talk." If any reader of the BULLETIN thinks that poetry and human anatomy are incompatibles, he might try himself out on the *Living Temple*; and, if he finds something there, he could turn to the *Chambered Nautilus*, in which biology and poetry, under the master's touch, blend into one of the most beautiful poems in our language.

Dr. Holmes was perhaps not the first believer in the contagious character of puerperal sepsis, or child-bed fever, as it was then called. But he was certainly the first to drive the fact home—to make it a living, active, impelling force in the practice of obstetrics. "I think," he said, "I shrieked my warning longer and louder than any of them, and I am pleased to remember that I took my grounds on the existing evidence long before the little army of microbes was marched up to support my position." In other words, he took his stand on clinical evidence alone. He followed Louis' so-called "numerical system." He procured reliable case reports and worked them up into a chain of reasoning, which easily withstood the "massive ignorance" of his critics. His two most formidable opponents were Dr. Charles D. Meigs, professor of obstetrics at Jefferson Medical College, and Professor Hodge, of the University of Pennsylvania. The substitution of abuse for sound logic, by some of Holmes' critics, drew from him a spirited reply, reiterating his facts and conclusions and weaving them into a piece of enduring literature. He gave some rein to his emotions and sentiment, and concluded with the following bit of writing which fairly vibrates with the intenseness and holiness of the cause he espoused:

It is as a lesson rather than as a reproach that I call up the memory of those irreparable errors and wrongs. No tongue can tell the heart breaking calamities they have caused; they have closed the eyes just opened to a new world of life and happiness; they have bowed the strength of manhood into the dust; they have cast the helplessness of infancy into the stranger's arms, or bequeath it with less cruelty the death of its dying parent. There is no tone deep enough for record, and no voice loud enough for warning. The woman about to become a mother, or with her new born baby upon her bosom, should be the object of trembling care and sympathy wherever she bears her tender burden or stretches her aching limbs. The very outcast of the street has pity upon her sister in degradation, when the seal of promised maternity is impressed upon her. The remorseless vengeance of the law brought down upon its victim by a machinery as sure as destiny, is arrested in its fall at a word that reveals her transient claims for mercy. The solemn prayer of the liturgy singles out her sorrows from the

multiplied trials of life to plead for her in the hour of peril. God forbid that any member of the profession to which she trusts her life, doubly precious at that eventful period, should regard it negligently, unadvisedly, or selfishly.

The paper on puerperal fever, and one on malarial fever of New England, were Holmes' only really great contributions to medicine. He remained throughout his life, nominally at least, attached to the profession. His principal activity therein was confined, with the passing years to his professorship of anatomy and lectures on medical and allied subjects. His addresses to medical students are filled with lessons of practical wisdom, with here and there a strain of humor or pathos. He was a strong believer in what one might call the soul of medicine. Its earthly habitations may show many defects in architecture and workmanship, but their domes and spires, carved and embellished with the genius of many centuries, point towards the eternal. With the so-called irregulars he had neither sympathy nor patience. His essay on homeopathy is a strong impeachment of this cult, and is blended with a satirical humor and a biting ridicule, which makes wholesome reading to-day in this age of rampant irregulars, and radio therapeutics.

Perhaps most of Holmes' creative talent was devoted to literature and poetry. While not among the very great as a poet, he has, nevertheless, a permanent place there; as he holds, too, a seat of the highest rank among the literary men of his own country. I must resist the temptation of writing on the literary side of his life in an article which is already too long. Perhaps the following may be permitted:—

Most of the poets epitomized life according to their poetic conceptions. Shakespeare had his seven ages. Tennyson more than once used the ocean to figure the origin of life and the end of it: "When that which drew from out the boundless deep turns again home." Holmes puts it in this way:

Between two breaths what crowded mysteries lie,
The first short gasp, the last and long drawn sigh,
Like phantoms painted on the magic slide,
Forth from the darkness of the past we glide.
As living shadows for a moment seen
In airy pageant on the eternal screen,
Traced by a ray from one unchanging flame
Then seek the dust and stillness whence we came.

Social Aspects of Medicine

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DURING the past two or three decades the medical profession has been giving increasing attention to the social aspects of medicine. This is not to imply that the physician has not always been aware to some extent of the social implications of disease. But a new and more precise interest has been aroused due to certain developments in the science and practice of medicine and as the result of certain changes in our general social organization of which the medical practitioner is a part.

One of the important developments in medicine is the trend toward seeing the patient whole. As a result of the rapid expansion in scientific medical knowledge of the past sixty or seventy years, medical interest tended to become specialized in terms of diseased systems or organs. Largely through the contributions of psychiatry and psychoanalysis, we have come to realize that the organism is an indivisible whole, each part affecting and being affected by the other parts. With a shift to the sick person as the focus of attention, it becomes important to understand him as a total personality, functioning in his own unique social setting with all the responsibilities, tensions, frustrations and anxieties which may bear on his illness either etiologically or as deterrents to treatment. Dr. Franz Alexander discussed this new approach in the first issue of *Psychosomatic Medicine*. He stated: "Once again the patient as a human being with his worries, fears, hopes and despairs, as an indivisible whole and not only as the bearer of organs—of a diseased liver or stomach—is becoming the legitimate object of medical interest."¹

Among the general social changes motivating this concern with social aspects are our increased knowledge of the effect of cultural pressures on the individual and the trend towards social provision of the basic essentials of life. We are living in a society which is staggeringly complex, highly competitive and consequently threatening and fraught with insecurity for the individual. We are trying to counteract some of these weaknesses in our culture by developing what are popularly known as social security programs. Dr. Henry Sigerist of Johns Hopkins University School of Medicine recognizes the importance of social pressures upon the physician when he says: "There is one lesson that can be derived from history. It is this: that the physician's position in society is never determined by the physician himself, but by the society he is serving."² The physician is being pushed to concern himself with these general social problems and to give leadership and counsel in those areas where his expertness is indispensable.

As yet there is some confusion regarding this concept of the social aspects of medicine. The area has not been concisely defined. Interest has sprung chiefly from public health and preventive medicine and psychiatry. Without doubt it is closely related to the new psychosomatic approach to illness with its emphasis on total personality and its concern with the cultural and socio-economic setting to which the sick person is trying to adjust. It has included the organization and distribution of medical care, public medical care programs

and methods of ensuring adequate medical care to low-income groups. It is that part of medicine which impinges most directly upon the other professional services and facilities the community provides for the well-being of its members. It implies a knowledge on the part of the physician of social goals, patterns and problems. Dr. Franz Goldmann who has been instructor in Social and Economic Aspects of Medicine at Yale University School of Medicine for some years stated: "There are two major themes that constitute the basis of a satisfactory plan of instruction in social and economic aspects of medicine: First, illness in its socio-economic setting and second, social action to meet the problems arising out of illness."³

In 1939 Dr. G. Canby Robinson of the Johns Hopkins University School of Medicine made a report of his study of the social aspects of illness. In the foreword he refers to a statement he made fifteen years before regarding "the human problems which surround but are apart from the illness." He goes on to say that as a result of further study he has one change to make in the statement; that he is now convinced that "the human problems which surround the patient are not apart from illness but form an important component of illness."⁴

What is this social component of illness which the physician is recognizing and seeking to integrate with other data in the diagnostic study and treatment plan of his patient? Some physicians have expressed the belief that it is something the old family doctor quite naturally understood because of his long and close acquaintance with the families under his care; that it is a quality of warmth and friendliness; something we are in danger of losing through specialization and the institutionalization of medical practice. There is no doubt much value in seeing the patient in his own home setting where the impact of the family group may be observed. But unless the physician is sensitive to the unique character of each human being, he is likely to see the patient in terms of conventional patterns of social relationship and thus miss the fine variations which are of great significance.

In brief, the social component in medicine consists of those personal and social factors which have been of primary or secondary etiological significance in the illness, and which influence the patient's reaction to treatment and his willingness to cooperate with the physician in achieving health. Our increasing knowledge of the development of personality has made us aware of the individual as a social being. He is the kind of person he is because he has been moulded by a particular kind of physical and social environment. He and his environment are not mutually exclusive. His skin does not set the limits of his personality. When the patient sits on the other side of the desk from his physician he bears with him everything in his own unique past, either consciously or subconsciously. He is still an indivisible whole with his own particular social setting. It is his effort to conform and perform in a socially acceptable and adequate manner which may give rise to emotional conflict which has been shown to be a potentially pathogenic agent. His success in adjusting socially and in carrying his social responsibilities are indices of his general well-being and of the strengths and weaknesses in his personality which may help or hinder recovery.

Illness of itself is a human experience of great emotional and social significance. Not only may it constitute a severe threat to security but also it may be used as a socially acceptable way of escape from responsibilities that

are overwhelming. It creates a situation in which dormant or subacute social problems may become serious. Disfigurement or disability may result in social maladjustment in an otherwise well-adjusted individual. To understand the meaning of illness to a particular patient means understanding his inner drives and satisfactions and the social pressures which are making continuous demands upon him.

In order to illustrate the social component, three cases are presented.

Case 1. A fifty-nine year old Polish man went to his physician because of a cough of three months' duration. History revealed loss of weight, fatigue and chest pain. An X-ray was taken. A week later he returned. The diagnosis was active pulmonary tuberculosis and immediate sanatorium care was advised. The patient was shocked by the diagnosis and insisted that he was unable to go to a sanatorium because of his financial responsibilities. A brief interview revealed that the patient was married and had two daughters, one working and the other in school. He was a painter earning \$30 a week and had savings of \$100. Looking at the situation objectively, there seemed to be no reason why the family could not manage financially without the patient's wages. Further interviewing revealed that the patient had gone through severe financial difficulties and that within the previous four or five years he had arrived at what he considered financial security. He had bought a small home on which he owed only \$375. Hospitalization would revive the old anxieties and insecurities of former years. Furthermore, he had hopes of a comfortable, secure and happy life for his wife following the years when she had worked and struggled along with him to make ends meet. This illness meant that she must again pick up the burden and carry the role of provider. The physician was in a better position to get the patient's cooperation in treatment when he understood the full significance of the situation. Without this understanding it would have been easy to label this patient uncooperative and to have built up further resistance.

Case 2. A three year old child was hospitalized by his physician for medical study. He was found to have encephalitis which was followed by almost complete blindness and partial paralysis of the left arm and leg. In view of the pediatrician's concern for the normal development of the whole child, he has special responsibility to concern himself with disability and to initiate action to minimize both the physical handicap and associated emotional trauma. As far as this child's blindness was concerned, there was nothing the physician could do. Long time physical therapy was advised for the paralysis. This involved expenditure of both money and time on the part of the mother or some other person who could give at least half an hour a day to the treatment and make such visits to the physician as he advised. Moreover, if this child was to develop to his maximum capacity, he needed wise supervision and guidance. The emotional problems created by over-sentimental or otherwise bad handling of the crippled child may be more damaging than the actual organic impairment. To make a satisfactory plan for such a child necessitates an understanding of the home situation and the parents' ability to give wise care. Since this child was in a hospital, the medical social worker was used to make a social study. She found the family to consist of the parents and five children, aged four months to eight years. The father's wage was \$40 a week. The mother appeared to have average intelligence but to be overwhelmed by her responsibilities. She was under the care of a physician for a functional heart disorder. Her management of the home and finances was poor. While

the parents were willing to have the patient return home and agreed to carry out the medical recommendations, it was the judgment of both the medical social worker and the physician that the home was not a suitable place, at least for a time. The situation was discussed in detail with the father. He expressed the anxiety he and the mother had felt regarding care of the patient at home and was much relieved to have help in working out a different plan. The patient was cared for in a special institution for a while with the probability of transfer to a school for the blind when he reached school age.

Case 3. A nineteen year old girl, Mary C., went to her physician complaining of feeling dazed, tired, pain in her side, burning around her heart and pain in the top of her head. The physical examination was essentially negative. Sedatives and encouragement were given. She returned several times not improved. The physician questioned psychoneurosis and referred her to a psychiatric clinic. The psychiatrist got a history of severe emotional and economic strain which the girl was trying to cope with single-handed. Social study revealed that Mary had been trying to support her mother and fourteen year old brother following her father's death three years before. At times she had been unable to work and the family lived on a small public allowance. But what seemed to trouble her most was that her mother was "queer"; had always been queer. Mary gave a social history of deprivation, both physical and emotional. A study of social agency and hospital records confirmed her story. When she was three years old a children's protective agency had been called in by a visiting nurse. A nine-months old brother was found to be in an extremely emaciated condition and died of starvation on his way to a hospital. Mary was also in very bad physical condition. At that time the mother was found to have a mental age of eight years but she was not committable. Following a brief placement outside the home, Mary was returned to the parents at their urgent request. While the father did not always provide for his family adequately, he was apparently much superior to the mother and did his best to give the children proper care. His death had been a great blow to Mary and she felt a keen desire to take his place in caring for the mother and keeping the home together. She had strong guilt feelings about being ashamed of her mother. When a clinic appointment was made for the mother, Mary turned up alone. She at first said that her mother had not got up in time to come but later corrected herself and said, "I ought not to be ashamed of my mother, but the way she talks and laughs on the street nearly kills me." The mother was examined at home and found to be both feeble-minded and psychotic. Commitment was arranged. Mary delayed the commitment for some time because of her inability to come to a decision but she eventually accepted the plan. While she did not make an immediate recovery, with continued psychiatric and social treatment over a period of about two years, she did make a fairly satisfactory adjustment.

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*The Conquest of Smallpox

AT last it seems that our country is about to join the ranks of the nations that have eradicated smallpox. Only 384 cases of this loathsome disease were reported in the United States during 1944. This is less than half the previous low record established the year before. In the area stretching from Maine to Maryland, there was not a single case last year; one Western State, Utah, also had a perfect record. In all, 12 States and the District of Columbia, which include more than one-quarter of the total population of the country were completely free of smallpox in 1944. Twenty-two States reported less than five cases per million population. The largest number of cases, in Indiana, was only 38. As recently as 1940 Minnesota and Iowa each had more cases than were recorded in the entire country last year.

The progress made toward the elimination of smallpox in this country since the first World War is shown in the chart on page 8. In 1921, when figures for the country as a whole began to be fairly complete, there were about 109,000 cases of the disease reported in the United States. In that year 31 States each reported in excess of 1,000 cases, one State running above 9,000. In the next largest epidemic year, 1924, the number of cases was close to 57,000. A somewhat lower peak is recorded for 1930, when nearly 50,000 cases were reported. The most recent upswing in smallpox culminated in 1938, with 15,000 cases that year. Since then the trend has been steadily downward, with the result that the disease is now near the vanishing point.

It is difficult for the present generation to realize the dread with which this disease was once regarded. We need go back less than 75 years to see the reason for this attitude. Figures for the entire country are not available for that period, but the records of certain of the large cities are striking. In New York City, for example, in the epidemic year 1872, deaths attributed to smallpox were equivalent to a rate of 113 per 100,000 population. In Chicago, that year, the smallpox death rate was 193 per 100,000; Boston's rate was 270, and Philadelphia's 365. In Baltimore, during the 12 months from April 1872 to March 1873, the smallpox death rate averaged 504 per 100,000. Rates almost as high were reported by these cities in outbreaks during the 80's. New Orleans, which had long been a breeding spot for smallpox, in 1883 recorded an almost unbelievably high mortality rate from the disease—565 per 100,000. This is about twice the current national death rate from cancer, tuberculosis, pneumonia, and accidents combined.

The pity is that all this sacrifice of life could have been avoided as easily at that time as at present, since the efficacy of vaccination as a preventive of smallpox had been well established long before 1872. Proof of this statement is supplied by the experience of Providence, R. I., where vaccination against smallpox has been a requirement for school attendance since 1856. Consequently, during the widespread epidemic of 1872-73, the city's death rate from the disease was only 17 per 100,000—a very small fraction of that recorded by other leading cities of the period, as indicated by the series of figures cited above.

It is to be hoped that the present favorable situation will not lead to a feeling of complacency and indifference to the need for constant watchful-

ness against this dread disease, with the consequence neglect of the simple preventive procedure of vaccination and revaccination. If this should occur, a large non-immune population will be built up, providing a fertile field for widespread epidemics and a resurgence of the disease in future years. The recent experience of Pennsylvania should be a constant reminder of the danger inherent in an unprotected population. Only two cases had been reported in that State between 1932 and November 1942. In that month this splendid record was badly shattered when a woman from Ohio with a mild case of small-pox visited an unvaccinated community of Amish people in Lancaster County. As a direct result, 65 cases were recorded before the epidemic was brought under control.

Abstracts from Current Literature

OBSERVATIONS ON THE TREATMENT OF SUBACUTE BACTERIAL (STREPTOCOCCAL) ENDOCARDITIS SINCE 1939. Kelson, Saul R.: *Ann. of Int. Med.*, 1944, 22: 75.

In a large series of cases of subacute bacterial (streptococcal) endocarditis sulfanilamide, sulfathiazole, and sulfadiazine at times gave transient benefit but resulted in no recoveries. Sulfapyridine reduced the fever in a majority and frequently rendered blood cultures negative, but cured only 4 of 197 patients. Neoparsphenamine, the sulfonamides together with intravenous typho-paratyphoid vaccine or with hyperthermia, and various other measures gave no lasting help.

Apparent recoveries from subacute streptococcal endocarditis reported since 1939 have been analyzed. Because of their uncertainty, some cases reported as cured could not be included. A method of therapy is not fairly tested, it is pointed out, when the described technic has not been followed or is used with lack of care or persistency, and statistics based on such cases are misleading. Instances of endarteritis of the patent ductus arteriosus treated by surgical closure appear prominently in the report.

Sulfapyridine proved to be the most active of the drugs in lowering the temperature—not a mere “antipyretic” effect—and in rendering blood cultures negative—a sterilization of the blood stream—but its benefits passed off in a few days to two months. The failures of sulfapyridine to cure appear related to complications of the disease, toxic effects of the drug, its bacteriostatic rather than bactericidal mechanism, a low concentration of drug within the vegetations, its ineffectiveness against some strains of non-hemolytic streptococci and the almost regular development of resistance to its action. Such clinical “escape” from sulfonamide effect after an earlier response has been shown to result from a decreased susceptibility of the bacteria themselves.

The author and White introduced heparin, in combination with chemotherapy in subacute bacterial endocarditis, in an attempt to prevent the further deposition of platelets and fibrin on the bacterial vegetations. The *combined* nature of this attack is again stressed: heparin has been beneficial only when sulfapyridine (or a related drug) reduced the temperature to normal or near it and sterilized the blood stream. Decreasing the blood coagulability during a period of such antibacterial effect has almost regularly resulted in recovery. Avoidance of the previous use of sulfapyridine, because of the readiness with which fastness develops, and the persistent continuance of treatment have been the two rules of success with this method. In addition to two in the original series, 10 further apparent recoveries from the disease treated by the author are noted.

Penicillin, effective *in vitro* against non-hemolytic streptococci, can reduce the temperature and sterilize the blood in cases of subacute bacterial (streptococcal) endocarditis, but on discontinuing the drug, fever and bacteremia have recurred in all but two of such patients (those of Dawson) reported to date. Lesser effectiveness against some strains of the organisms, possible acquired bacterial resistance and inadequate penetration into the vegetations and the failure of the drug (although bactericidal as well as bacteriostatic) completely to sterilize, appear as factors in its unsuccessful results.

Substituted for sulfapyridine in the heparin-chemotherapy method, penicillin was partially effective in a personally-treated case, but pleomorphic streptococci persisted on the culture plates; these disappeared with supplemental sulfadiazine, and the patient has remained well since completing the 10 day course of treatment in November 1943. Loewe's group has reported six apparent recoveries from streptococcal endocarditis with the use of penicillin and heparin. Penicillin excels sulfapyridine in its low toxicity and lesser tendency to induce drug fastness, but further data are needed to evaluate its effectiveness, to determine the best plan of therapy, and to learn if, unlike sulfapyridine, penicillin can alone result in a high proportion of successes, and if accompanying it also the use of heparin is advantageous.

TREATMENT OF INTRACTABLE BRONCHIAL ASTHMA. Barach, Alvan L.: Bull. of N. Y. Acad. of Med., 1944, 20: 538.

Studies of the pathological physiology of obstructive dyspnea indicate that the elevated negative intrapulmonary pressure during the inspiratory cycle exercises a harmful influence on respiratory function. Lowering of this negative pressure by appropriate inhalational and drug therapy is of value in preventing pathological changes in the lungs and intrathoracic bronchi.

Physiologically directed therapy in status asthmaticus may include the inhalation of helium-oxygen mixtures to provide a less effortful type of breathing, or oxygen-enriched air to prevent the effects of anoxia on the cardiac and respiratory systems.

In many patients with intractable bronchial asthma, a program of repeated bronchial relaxation may be pursued without necessarily employing inhalational therapy. The principle of treatment consists of the use of measures which promote relaxation of the constricted bronchial muscle. These include administration of aminophyllin by intravenous or, more conveniently, by rectal instillation of an aqueous solution, potassium iodide, dilaudid or demerol, neosynephrin by nebulization, and sedation, preferably with sodium luminal. Intermittent inhalation of helium-oxygen mixtures may be added to this regimen since it is helpful during the first 5 days in promoting local bronchial relaxation.

In cases in which the program of bronchial relaxation results in only temporary alleviation of symptoms, a continuation of some of the procedures used is indicated. Administration of aminophyllin in adequate dosages by mouth or by rectal instillation may be required for a prolonged period to prevent recurrence of severe asthma. In these cases, other measures may be tried, such as anesthetic doses of colonic ether and the production of fever with typhoid vaccine.

In the majority of cases of intractable asthma, a more satisfactory remission of the symptoms of the disease may be obtained by the concentrated employment of procedures which produce in one way or another cumulative relaxation of constricted bronchial muscles than by simple palliative therapy.

THE SURGICAL TREATMENT OF THROMBO-EMBOLISM AND ITS SEQUELAE. De Takats, Geza: Bull. of N. Y. Acad. of Med., 1944, 20: 623.

The author sums up the experience of his group with surgical measures directed against thrombo-embolism. These are employed in conjunction

with other measures, chiefly the use of anticoagulants. The indications for paravertebral block at present are the existence of a demonstrable arterial or venocapillary spasm with cyanosis, diminished pulsation, intense stocking or glove-like pain. This clot is mostly in the iliofemoral segment with perivenous inflammatory reaction, the typical iliofemoral thrombophlebitis. There seems to be no special advantage in using this block on patients suffering from the bland, quiet type of thromboses of the lower leg.

Sympathetic ganglionectomy has been done only in two patients with a chronic phlebitic induration and ulceration. While both ulcers healed, neither the edema nor the character of the thin scar bridging the defect had been influenced. The scars broke down later and had to be widely excised.

Division of the femoral vein below the profunda has been found to be an excellent measure: (1) in patients who have had a pulmonary embolus the source of which was localized to a thrombus below the knee; (2) in patients who suddenly experienced the classical symptoms of plantar-vein or lower-leg thrombosis without any clinical involvement of the femoral segment. Such patients, as emphasized by Bauer, may well have a floating, non-obstructive thrombus in the femoral vein but this causes no clinical symptoms and is dangerous as far as its tendency to break loose. Division of the common femoral or common iliac vein in the presence of a typical acute milk-leg has not been done in this group except in a few cases and the author is quite uncertain about its value. In old chronic cases, with established collateral circulation and a deep venous valvular insufficiency the author has not been able to see any indication for it. Ligation of the vena cava in the occasional bilateral iliac thrombosis with emboli may save life and seems to result in no additional circulatory impairment. The approach is that to a muscle-splitting extraperitoneal lumbar sympathectomy.

Excision of a chronic thrombophlebitic ulcer with induration, followed by a dermatome graft, is a very valuable procedure and saves the patient much loss of time and suffering. Naturally, the chronic edema will not be influenced and elastic support must be worn, probably continuously.

The slowly fatal pulmonary embolus might be aspirated from the pulmonary artery surgically.

The factors responsible for the intravascular clotting of blood must always be considered and controlled even if surgical measures are indicated. These measures therefore constitute only one phase of treatment. The surgeon must try to accelerate venous return, not operate in the presence of sensitization phenomena, and attempt to control the clotting mechanism by anticoagulants. The distinction between infectious thrombophlebitis and aseptic, bland phlebothrombosis is not always possible. Both may exist simultaneously in the same patient. The segmental localization of thrombi is often determined by mechanical impediments of blood flow, produced by ligaments, tendons or angulations. Thrombi are well recognizable in the saphenous, plantar, deep lower leg, iliofemoral and pelvic veins, and their treatment does depend on their location. Paravertebral sympathetic block is used in acute and chronic iliofemoral thromboses exhibiting vasospasm. Sympathetic ganglionectomy for venous thromboses of the extremities and their sequelae has not been especially helpful. Division of the superficial femoral vein in cases of thrombosis of the lower leg is an excellent procedure. It not only prevents more emboli from this source but inhibits the development of an

ascending thrombosis with permanent edema. Divisions at a higher level have not yet been routinely adopted, since anticoagulant therapy seems at least as efficacious and probably not as productive of late edema. Excision of thrombophlebitic indurations and ulcerations, followed by a split-thickness skin graft is very useful. The surgical treatment of pulmonary embolism is most rarely indicated, but in slowly fatal cases may save a life.

HAZARDS IN THE SALICYLATE TREATMENT OF RHEUMATIC FEVER. Editorial, Jour. Am. Med. Assoc., 1944, 127: 460.

Dangers encountered in the administration of large amounts of salicylates recently have been reported. Salicylates have long been used in the treatment of rheumatic fever. Physicians are familiar with the astonishing relief the drug gives the stricken child. Acutely inflamed joints that are so sensitive that they cannot tolerate the weight of the bedclothes soon are able to resume their normal function after the administration of salicylates. The antipyretic properties of the drug are as striking as are the analgesic effects.

Recently Coburn advocated the administration of large doses of salicylates in acute rheumatic fever. He recommended the intravenous administration of 10 Gm. of sodium salicylate in 1,000 cc. of 0.9 per cent sodium chloride every day for four days. Intravenous medication was given slowly over a period of four to six hours, so that sufficiently high concentrations of the drug in the body could be reached and maintained. Plasma salicylate values of 400 micrograms per cubic centimeter could be attained by his method. In fact, Coburn believed that values of 150 to 200 micrograms, easily attained by oral administration of salicylates, while providing relief from the acute symptoms of rheumatic fever, failed to halt the progress of the disease. He contended that serum salicylate values of 350 micrograms per cubic centimeter or more must be maintained if the "rheumatic reaction" was to be held in check. Protocols of his small series of cases furnished some remarkable results, especially the rapid resolution of the acute phases of the disease, as judged by the quick return of sedimentation rates to normal and the sudden disappearance of clinical signs. Many are not in accord, however, with his thesis of the early curtailment of the damage inflicted by the "rheumatic reaction". It has been pointed out that sufficient time has not elapsed to judge fairly the results of Coburn's treatment. This is particularly true in regard to the incidence of mitral heart disease, pericarditis and pancarditis, common aftermaths of acute rheumatic fever.

Large amounts of salicylates cannot be given without careful clinical observation of the patient. Deaths and severe complications from salicylates have been recorded. Patients should be questioned concerning any sensitivity to salicylates before the drug is given. The appearance of tinnitus, vertigo, deafness, nausea or other symptoms should indicate the cessation of further administration of the drug. Hypoprothrombinemia has been reported to follow salicylate therapy; some have found that adequate amounts of vitamin K will protect against this contingency.

The whole problem of salicylate intoxication was recently studied by Fashena and Walker after their attention had been drawn to the subject by the observation of a patient with salicylate poisoning. They studied 6 children, to whom they gave large amounts of sodium salicylate by mouth every four

hours. Blood salicylate levels of 350 micrograms per cubic centimeter were maintained throughout the study. Prolongation of prothrombin time was found in every instance.

Rheumatic fever often is accompanied by a widespread vascular damage, thus increasing the hazards of hemorrhagic complications after salicylate administration. When adequate amounts of vitamin K are given with salicylates, much of the danger of these complications may be prevented. Possible hazards in the administration of salicylates should be remembered so that unnecessary dangers may be avoided.

INFLAMMATORY LESIONS OF THE SMALL INTESTINE. Cave, Henry W.: Jour. Am. Med. Assoc., 1944, 127: 456.

Numerous patients with early acute regional enteritis will recover without resection or even without ileocolostomy with exclusion. Appendectomy in the early stage or other stages invites disaster. In the surgical management of regional enteritis resection in one or two stages has been generally accepted as the procedure of choice. Colp, Garlock, and Ginsburg believe that a sufficient number of patients can be cured by ileocelectomy with exclusion alone so that resection is unnecessary. Certainly their results with this procedure have been most encouraging. A certain percentage of patients suffering from ulcerative colitis have an associated ileitis. This diseased terminal ileum should be removed at the time of partial or complete colectomy. A rare inflammatory lesion of the small intestine termed chronic organized enteritis was recently treated in the Surgical Service of the Roosevelt Hospital.

E. DAVID SHERMAN, M.D.

Abstract Editor

Retrospect

H. L. SCAMMELL

THE Second Great War is over! For this we are truly thankful. On the same great day came the news that the rationing of gasoline was also over. This was sufficient cause for a miniature private celebration. No doubt many a physician felt the same way. He looked upon it usually as a nuisance, but for all that, a necessary nuisance. His one anxiety was whether he would get enough to carry him through. Without exception he always did, though sometimes by a narrow margin. At times situations were tense. Now we may look back and survey the "humours of the fray."

First of all there were a few who applied and did not get an extra allowance. They felt and may still feel that they were badly used. Let us hope that the present "showers of blessing" will assuage their feelings. As for us we could only stand aside and share their woes silently. Their appeal was to a higher court than ours.

About the first of March in each year of the drought the beginners, the wise "early bird," would get their applications in for signature and have them forwarded to the Oil Controller. About the middle of April, when examinations were looming, the stream of forms was in spate. By July they had fallen to a trickle, but an anxious and urgent trickle for all that. Sometimes the last few were accompanied by letters of apology or explanation, quite unnecessary, but always interesting and reflecting the fellow feelings of one who never does to-day what he can put off until tomorrow. Whether they came early or late, all the forms were signed and remailed on the day received. In Ontario the Registrar evidently secured a rubber signature stamp to deal with the situation. We didn't but we often envied him.

At this point heartfelt thanks is due to those who enclosed stamps for remailing, and extra sugar for stamped, addressed envelopes. These were in the majority and it indicated a kindly consideration which was sufficient reward for the work done. As the Government provided no funds for postage and envelopes the local office of the Oil Controller met the appeal to the best of their ability and for this we were personally grateful.

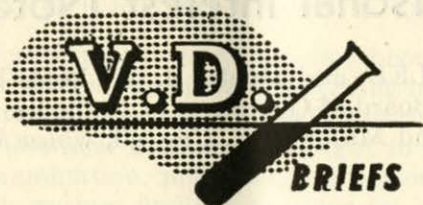
We had been repeatedly assured that no doctor would lack necessary gasoline as long as gasoline could be secured for distribution. In spite of this worried confreres wrote for letters to accompany their applications, pointing out their long drives, nay their frequent long drives, over the worst roads and in the coldest weather. With due regard for facts we always added a note, quite unnecessarily we felt, and always they got their gasoline, so everybody was happy. A unique and ticklish situation developed when one doctor got an assistant, furnishing him with an extra car which he had. As he was the owner of both cars and it was against the rule that gasoline could be secured for both, there was a jam at once. However, with patience and explanation, even this was ironed out.

A year or so ago, antifreeze became a live issue. We must have the best and nothing but the best. It recalled the experience of a late confrere of happy and affectionate memory, who once had the most valuable anti-freeze procurable in his car—but only for a day. It will be recalled

that he was gaoil physician, and one morning on his usual visit he was interested to see a number of His Majesty's officers dumping a quantity of seized rum. The day was chilly and this no doubt led to the thought that if man could not have his "innards" warmed with the "demon," the car might. Enough to say that, when he left, the doctor's radiator was filled with rum for anti-freeze. Sad to relate, however, the heat of the car caused a decided aroma of warm spirits to surround it like a halo, and as the good physician always drove at a most moderate pace, this was noticeable even on the street. So after comments on this matter had reached his ears, our old friend had to regretfully open the spigot and seek the best a garage could afford. We have not heard that any of our physicians had a similar experience during the years of peril just gone. A much more scientifically prepared fluid was made available to them.

A year or two ago old cars began to disintegrate. Is a curious observation that the first signs appeared in the speedometer. Builders of cars in the New Age should note this fact carefully. New parts were hard to get and repairs were difficult or impossible to effect. The only solution was a new car. Again, as a routine, the application form would eventually reach us. It required us to state that having "investigated" the application we recommended its acceptance. Having neither the time nor knowledge to carry out the "investigation" as to whether the old car was worn beyond repair, the statement was simply made that the applicant was a physician and all physicians needed reliable cars. We have not yet heard of a refusal.

So, it is all over. May we never see another. The rationing of gasoline was just one tiny atom of the tremendous whole, but in action it reflected a phase of human reaction to a necessary restriction. May the spirit with which we accepted it follow us into the Peace.



Diagnosis of Urethritis in the Male

A diagnosis of gonorrhoea must not be made in the absence of laboratory confirmation. The presence of an urethral discharge and the detection of gram-negative intracellular diplococci morphologically resembling gonococci in smears of the urethral exudate, establish the diagnosis of gonorrhoea. When specific organisms are not found, a diagnosis of non-specific (non-gonococcal) urethritis is made.

Thinly spread smears of the urethral discharge should be taken as soon as the patient presents himself with an urethral discharge. *Several smears* should be made on the *first examination*, preferably two to four or even more. The larger the number of smears examined, the greater the probability of finding gonococci and the less chance of a case of gonorrhoea being overlooked and diagnosed non-specific urethritis. The first drop of pus which is nearly always heavily contaminated by other organisms, should be carefully wiped from the meatus before the smears are taken.

Suspicion of Syphilis

All patients presenting themselves with symptoms indicating possible gonorrhoea should have a Serologic Test for syphilis.

- (a) At the time of the initial examination. *The responsibility for this test rests with the physician.*
- (b) Three months after the completion of treatment. The responsibility for this test rests with the patient himself. This must be clearly explained to him.

Mapharsen Twice a Week

When *Mapharsen* is used for the treatment of early acquired syphilis, it should be given *twice a week*, at least for the first two arsenical courses.

Personal Interest Notes

DOCTOR H. B. ATLEE and Doctor J. W. Reid, both of Halifax, have been named to the Board of Governors of Dalhousie University, replacing Doctor J. V. Graham and Major O. R. Crowell, whose terms expired on May first of this year.

The marriage took place in Halifax on July 30th of Miss Rowena Jane Benson, daughter of Mr. and Mrs. J. C. H. Benson, Bridgetown and Captain Ian Stewart Robb, R.C.A.M.C., son of Mrs. Robb and the late Rev. Dr. A. F. Robb, of Korea and Halifax. Doctor Robb graduated from Dalhousie Medical School in 1942.

The BULLETIN welcomes home from overseas the following Nova Scotian doctors; Lt.-Colonel E. F. Ross, Lt.-Colonel H. D. O'Brien and Major C. J. Macdonald, of Halifax; Captain J. Raymond Van Horne of Yarmouth; Major C. G. MacKinnon, of Bridgewater; Captain H. J. Townsend, of Louisbourg; and Major J. A. F. Young, of Pictou. A welcome is also extended to Captain C. A. Roberts of St. John's, Newfoundland, who graduated from Dalhousie Medical School in January, 1943.

The BULLETIN extends congratulations to Captain R. W. Begg, (Dal. '42), R.C.A.M.C., and Mrs. Begg (Elsie Baker of Winnipeg) on the birth of a daughter, Beverley Ann, at Winnipeg General Hospital on July 15th.

The marriage took place in Halifax on August 11th of Miss Jean Elizabeth Buck, daughter of Mr. C. D. Buck and the late Mrs. Buck of Sydney, and Doctor William Ross Morrison of Halifax, son of Mrs. A. R. Morrison and the late Mr. Morrison of Halifax. Dr. Morrison graduated from Dalhousie Medical School in May of this year. Dr. and Mrs. Morrison will reside at Great Village.

Colonel Gordon A. Winfield of Halifax was presented with the O.B.E. at Buckingham Palace on July 26th by H. M. the King.

Obituary

THE BULLETIN extends sympathy to Captain Brian Ormsby Black, R.C.A.M.C., on the death of his wife Lauraine Annie Black, which occurred at Halifax on August 5th.