



The Surgeon

*From Ars Chirgigica Magna, by Guy De Chauliac
A. D., 1395-1463.*

THE conditions necessary for the surgeon are four: first, he should be learned; second, he should be expert; third, he must be ingenious; fourth, he must be able to adapt himself. It is required for the first, that the surgeon should know not only the principles of surgery, but also those of medicine in theory and practice; for the second, that he should have seen others operate; for the third, that he should be ingenious; and for the fourth, that he be adaptable and able to accommodate himself to circumstances. Let the surgeon be bold in all sure things, and fearful in dangerous things; let him avoid all faulty treatments and practices. He ought to be gracious to the sick, considerate to his associates, cautious in his prognostications. Let him be modest, dignified, gentle, pitiful and merciful; not covetous nor an extortionist of money; but rather let his reward be according to his work, to the means of the patient, to the quality of the issue, and to his own dignity.

The Plague at Athens

(430 B. C.)

TO many people the great pestilences of the past are a perennial source of interest, and well might they be, when one remembers that often they have changed the course of a country's history. We are all familiar with the generally accepted opinion that the Black Death which raged in England during the reign of Edward III was one of the great influences in changing the social order of the country. So many of the labouring classes had died, and manual labourers were so scarce, that the working man of the day was not slow to take advantage of the circumstances to improve his position.

From the medical point of view one of the most interesting epidemics that has ever occurred in the past, took place in Athens about 430 B. C., during the second year of the Peloponnesian war. At that time Athens had attained to the height of her glory. Under the leadership of Pericles, the Acropolis had been crowned with magnificent temples and statues. There was the glorious Parthenon constructed under the direction of the architect Ictinus, and the majestic statue of Athena by Phidias, whose spear, especially when the sun's rays flashed upon it, oft served as a beacon and a welcome home to the Athenian sailor as he rounded the promontory of Sunium, far off to the South.

This was also the age of the great poets, philosophers and statesmen, who have handed down so great a legacy of intellectual wealth that succeeding ages can scarce appreciate it. Their statesmen brought the constitution to such a height of perfection that modern democracies are fain to look up to it as an ideal, to be hoped for rather than to be actually realized.

On such a state fell the Peloponnesian war, in the second year of which occurred the pestilence. The Spartans, as in the first year of the war, had invaded Attica. This invasion drove the country people to seek refuge within the walls of the city. There were not enough houses in the city, even when seriously over-crowded, to accommodate the great increase in the population. Many persons were, therefore, compelled to live in huts erected along the walls that joined the Peiraeus, the seaport, to the city proper, three miles inland.

The Greek historian, Thucydides, gives a wonderful description of this epidemic, a translation of which is here offered.—

In passing, one might call attention to the remarkable fact that only a relatively few years previously history as known to us had its birth in the writings of Herodotus. The writings of Herodotus were, however, more of the nature of legendary tales, for he accepted as

fact what he was told, and never seemed to have exercised any critical judgement as to the accuracy of his sources.

Thucydides, the next historian, in spite of his proximity to Herodotus, was very different in the care with which he investigated facts and the impartiality with which he stated them. In one step he seemed to have attained the status of a modern critical historian, and his description of the Plague convinces one of his powers of accurate observation as well as of description. After remarking that during the previous year the health of Attica had been unusually good, he proceeds to say,—

“The disease began, it is said, in Ethiopia beyond Egypt, and then descended into Egypt and Libya and spread over the greater part of the King’s (of Persia) territory. Then it suddenly fell upon Athens and attacked first the inhabitants of the Peiraeus, so that the people there even said that the Peloponnesians had poisoned the cisterns, for there were as yet no public fountains. But afterwards, it reached the upper city also, and from that time the mortality became much greater. I shall describe its actual course, explaining the symptoms, so that a person having thereby acquired a previous knowledge may best be able to recognize it should it break out again, for I had the disease myself, and saw many people sick of it. From no obvious cause, suddenly, while in good health, men were seized with intense heat in the head and redness and inflammation of the eyes. The pharynx and tongue immediately became reddened and the breath became unnatural and foetid. Afterwards sneezing and hoarseness came on and in a short time the malady passed down into the chest accompanied by severe coughing. Then it settled in the stomach, which was upset, and all the sorts of bile that have ever been named by physicians were vomited up, which caused great distress, and in most cases empty retching followed, producing violent spasms which sometimes abated very soon, and sometimes not till long afterwards. Externally the body was not excessively warm to the touch, nor was it pallid, but reddish and livid, and breaking out in small blisters and ulcers. Internally it was so hot that the patients could not bear to have on them the lightest coverings or linen sheets, but wanted to be naked, and would have liked best to have thrown themselves into cold water (and many who were not taken care of did throw themselves into the cisterns, so tormented were they with unquenchable thirst), and it was all the same whether they drank much or little. Continual restlessness and insomnia were also present. The body was not wasted while the malady was at its height, but resisted surprisingly the ravages of the disease, so that when most of the patients died on the 7th or 9th day from the temperature, they still had some strength left. If they passed the crisis the disease went down into the bowels, producing a violent ulceration, and at the same time an acute diarrhoea set in, so that in this later stage most of them died from exhaustion. For the disease, starting from

the head where it was first seated, passed down until it spread through the whole body, and if one got over the worst, then gangrene attacked the extremities,—the fingers, the hands and the genitals, and many survived with the loss only of these, though some also lost their eyes.

In some cases the sufferers were attacked immediately after recovery with complete loss of memory, and they recognized neither themselves nor their friends. The nature of the disease was worse than words can describe, the violence of the attack being in each case too great for human nature to endure; while in one particular it clearly showed it was different from the common diseases, for the birds and the four-footed beasts which usually feed upon human bodies either would not come near them, when many were unburied, or died if they tasted them. The proof of this was a noticeable scarcity of such birds, as they were no longer to be seen about the bodies or anywhere else, while the dogs gave a better opportunity to observe what happened because they live with man.

Such then was the general nature of the disease, for I pass over many of the unusual symptoms since it happened to affect one man differently as compared with another. While the Plague lasted there were none of the commonplace illnesses, though if any did occur it ended in this. Sometimes death was due to neglect, but sometimes it occurred in spite of careful nursing, and no one remedy was found, I may say, which was sure to bring relief to those using it, for what helped one man hurt another, and no constitution was of itself strong enough to resist, or weak enough to escape the attacks, but it carried off all without distinction, even those tended with all medical care.

The most dreadful thing about the whole malady was not only the despondency of the victims when they once became aware that they were sick, for their minds immediately yielded to despair, and they gave themselves up for lost instead of resisting, but also the fact that they became infected by nursing one another and died like sheep. This caused the greatest mortality, for if from fear they were unwilling to visit one another, the sick died uncared for, so that many houses were completely left empty for lack of anyone to do the nursing, or if they visited the sick they perished, especially those who pretended at all to be virtuous. Influenced by honour they visited their friends with a complete disregard for their own safety, at a time when the very relatives of the dying, overwhelmed by the great calamity were becoming weary even of making lamentations. But those who had recovered had more pity for the dying and the sick because they had learned what it meant and they were by this time confident of immunity, for the disease did not attack a person the second time with fatal results. They were not only congratulated by everyone else, but in their joy they fancied that for all the rest of their lives they would not be carried off by even any other disease. In addition to this trouble, the Athenians suffered further hardship owing to the crowding into the city of the people from the country districts, and this

especially affected the new arrivals, for, since there were no houses available for them, they had to live in huts that were excessively hot in the warm season, and they died in great disorder. Bodies of dying men lay one upon another, and they rolled about in the streets and near all the fountains in their desire for water. All the burial customs were thrown into confusion, and they buried their dead as each one was able.

Many resorted to disgraceful modes of burial because so many members of their households had died that they had not the proper funeral materials. Going to other peoples' funeral pyres some, anticipating those who had built them, would put on their own dead; while others would throw the body they were carrying upon one which was already burning, and go away. In other respects also, the plague first gave rise to greater lawlessness in the city, for a person the more readily dared to do openly what formerly he had concealed. The people saw the sudden change of fortune both in the case of those who were prosperous and suddenly died and of those who previously had nothing; but in a moment had become possessed of the property of the others. No one was ready to take trouble about what was considered honour, thinking that he would be destroyed before he could attain it; but the pleasure of the moment and whatever was conducive to it, was regarded as honourable and profitable. No fear of the Gods nor of the laws of man restrained them, for on the one hand, seeing that all men were perishing alike, they considered that piety and impiety came to the same thing, and none of the guilty expected that he would live to be called to justice and receive punishment. They rather believed that the penalty decreed against them and now impending, was much greater, and before it fell upon them it was reasonable to enjoy life to some extent."

Such is Thucydides' account of the Plague of which on the whole a fairly literal translation has been made. It has been necessary to retain some quaint medical ideas which could neither be eliminated nor changed without doing violence to the original. In one or two instances, however, to present the ideas in modern language the translation has been so free as to amount almost to a paraphrase.

What this disease was, as far as one knows, has never been absolutely decided, and the Editors have felt that an interesting discussion might arise if readers who are interested in the "History of Medicine" would offer their views as to its nature.

The translator has been informed that gangrene of the extremities was observed in the epidemic of Typhus in the Balkans during the early years of the Great War. His experience of Typhus however, is so small, having seen only a few cases in New York over twenty years ago, that he would not care to do more than suggest that this ancient Athenian Plague might have been identical with the modern Typhus Fever.

S. J. M.

Poliomyelitis Anterior Acuta

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THE close study of Acute Anterior Poliomyelitis has been intensely interesting to me since 1911 when the colliery districts of South Cape Breton were visited by a most aggressive type of this dread disease. At the solicitation of the Editor of the Bulletin I incorporate in this article, an extended extract from a paper I read in 1912 before the Cape Breton County Medical Association, in which I dealt with cases that had occurred in my own medical practice at the time: supplemented by general remarks on the disease in question, which remarks indicated the extent of knowledge obtainable about the affection up to that date. The literature on the subject since then does not reveal, pathologically, much more to-day than was promulgated by the Rockefeller Institute in 1912, although in 1916 the severe New York epidemic gave unlimited opportunity for extended research. In 1924 there was a further outbreak in the United States; also one in New Zealand and another in Scandinavia, but none of these were comparable in extent and severity with the epidemics of 1911, 1912 and 1916.

It is in the line of treatment that the most extensive observations have been made and the most satisfactory results obtained. It is well recognized now that early diagnosis is a matter of prime importance, as it is in the first stage of the illness that treatment may be really effective. In the presence of an epidemic there are two phenomena that may lead to a correct diagnosis before the onset of paralysis which, in days gone by, gave the first fearful intimation of what was actually transpiring. Severe pain in the limbs and spine may precede the paralysis by twenty-four hours; while a lumbar puncture at this stage shows a lymphocytosis in the cerebro-spinal fluid. Two therapeutic measures are considered of great value at this period, namely, serum given intravenously, and large doses of urotropin administered by the mouth. The former may be either horse serum or that of patients some weeks convalescent from the disease. During the administration of the heavy doses of urotropin, careful daily urinary examination for albumin and blood should be made as a routine. Both the serum and urotropin should be continued for the first forty-eight hours of paralysis. The patient is kept at rest in a quiet, airy room, bright light is excluded, and visitors not allowed.

Then comes the treatment of the stage of repair which is a lengthy, often tedious, business. We are told not to despair of improvement for two years. Our first care is to guard against the effect of trophic disturbance, such as loss of heat; consequently, the paralyzed limbs

should be kept warm. Then we should see to it that the affected parts are immobilized in such a position that the paralyzed muscles are relaxed and their antagonists slightly on stretch. It is a well-known orthopedic fact that nothing is so fatal to the complete recovery of a paralyzed muscle as tension. After this follow in due course—

- (a). Massage.
- (b). Passive and active movements.
- (c). Orthopedic measures, but not before two years.

The following are instructions in massage, issued to nurses in such cases at the Hospital for Sick Children, Great Ormond-Street, London, England:

RUBBING—This must be done for a quarter of an hour twice a day. Lay the child on a bed.

1. Rub the paralysed leg from the foot right up to the top of the thigh. Rub upwards only. Put the broad part of your hand on the back of the child's leg. In rubbing the thigh put your hand first on the back of the thigh and afterwards on the front, but always rub upwards and be sure to go as high as the loins. Whilst rubbing with your right hand hold the foot with your left. Use for rubbing any kind of oil.

2. Take hold of the child's leg with your two hands just above the ankle. Rub round the leg with your two hands in opposite directions, as though you were wringing out sheets. Work up the leg and thigh from the foot up to the top of the thigh in the above manner.

3. Take the child's calf with your two hands. Put your fingers to the back part of the leg and your thumbs to the front. Squeeze the soft parts out between your finger and thumbs so as to flatten the leg out and make it as wide as possible. Work right up the leg and thigh in this manner.

4. Put your right hand over the front of the knee and your left under the foot. Push up the foot and, holding your right hand in front of the knee, you will prevent yourself doing any harm. You want, if possible, by pushing the foot to make the child push against your left hand with all its might. This is the most important of all exercises.

5. Flip every part of the leg and thigh with your fingers so as to make the whole of the limb quite red and warm.

6. Gently rub up and down all over. This will take away the stinging which was left by the last movement.

As already indicated, I append to the foregoing an account of an experience with this disease, in an epidemic form, that I encountered in 1912.

"I beg leave to submit, at this meeting of the Cape Breton Medical Society, a short account of the experience of the members of St. Joseph's Hospital Clinical Society, Glace Bay, with a severe epidemic of Infantile Paralysis that visited a number of the Colliery Districts in the summer and autumn of 1911. And further, I desire to supplement the record by presenting information, touching this disease, that I obtained at

the Rockefeller Institute for Medical Research during a recent visit to New York.

"The first of our cases appeared at Bridgeport in July, and a few weeks subsequently, the disease attacked adjacent territory. New Aberdeen, Glace Bay and Dominion town thus became centres of infection in rapid succession, while Dominion No. 3 and Reserve escaped unscathed. All cases were reported in detail at consecutive meetings of the Clinical Society, and notes of observation made by the different attending physicians were incorporated in the Minutes. I myself, presented the history of twenty cases of marked infection, all of which were striking enough in their course and termination to arrest attention, arouse anxiety, and, in many instances, to engender intense disappointment and sorrow. At least ten more cases could be added to the list under the name and style of "abortive," inasmuch as the initial symptoms correspond closely to those ushering in the typical affection, namely, vomiting, pain, drowsiness, irritability; but recovery was rapid with no ill results. Of these twenty cases, five died, showing the high mortality rate of 25%. Two made an early complete recovery; six, that have had paralysis of one or the other limb, are steadily improving; while three have residual paralysis of one or more limbs with obvious wasting of certain groups of muscles. Of the remaining four, three have facial paralysis, and the other weakness of the neck muscles, being unable to support the head without the aid of a stuffed collar. These four cases are, however, showing signs of gradual improvement.

"With reference to age, I may observe that four cases occurred in children under one year, six cases between one and two years, eight cases between two and three years, and two cases between three and five years.

"It is only within a few years that Infantile Paralysis has received the close attention of medical science. Previously, the paralysis had focused all consideration and this on autopsy was found to be due to a destructive process of the motor nerve cells in the anterior horn of grey matter in the spinal cord. The cause was unknown, the cases were comparatively few, and the treatment was principally in the hands of the orthopedic surgeon. But in 1905, a terrible epidemic raged in Sweden—1,500 cases, and in 1907 another in New York—2,000 cases, while a third ravaged Austria in the following year. The disease is supposed to have been brought to New York from the Scandinavian countries. In each of these countries, strenuous efforts were immediately made by leading clinicians and enthusiastic scientists to investigate this fearful scourge. Wickman in Sweden, Muller in Austria, and Flexner of New York, have placed the whole world under contribution for their painstaking labors in this connection. The first two studied the disease at the bedside, while Flexner made his observations in the laboratory. The result of their combined work is to show that Infantile Paralysis is essentially a general infection,

caused by what is known to biologists as a "filterable virus." Here, as with other infectious diseases, comparatively little advance had been made until the illuminating method of animal experimentation began to be employed. Two years ago, Flexner showed that the disease could be transmitted to monkeys by inoculating them with an emulsion made from the infected spinal cord of a child, who had died of the malady, and that thereby typical cases of it could be produced. The disease can now be readily transmitted by inoculation from monkey to monkey. Man and the monkey only are susceptible to the infection, though domestic animals are capable of carrying it about. The virus appears to contain a living organism and not simply a toxin. Its germ has not been identified, but from the fact that it can pass through the fine pores of the finest porcelain filter, it is inferred that it is one of the most minute organisms.

The virus is exceptionally resistant and potent; even 111,000 of a single cubic centimetre of it, when injected after filtration into the brain of a monkey, suffices to produce paralysis. The disease is highly contagious as was first suggested by Wickman and afterwards confirmed by Flexner. Flexner also proved that the so-called abortive cases were the most serious sources of dissemination, though flies are not to be disregarded nor clothing and dust. He further demonstrated that the upper respiratory tract is the site both of ingress and egress of the virus. It is maintained that one attack confers a long-continued if not a permanent immunity.

"At this stage, permit me in a word to give a mental picture of the disease as it presented itself to us in the Colliery Districts. In general, it is that of a previously healthy child taken suddenly sick with fever, vomiting, pain in the head, back or legs, and often becoming quickly very drowsy. On physical examination, there is stiffness of the neck with resistance to flexion; the child is irritable and wants to be left alone; cries out when moved or examined. Fever, drowsiness, irritability, pain or general tenderness, muscular twitchings and tremors, retention of urine and constipation, were fairly constant symptoms of all the ordinary cases. A number of cases were characterized by deep stupor, which developed early and from which it was hard or impossible to arouse the patient. One child whom I saw on the afternoon of the day on which it took sick was unconscious six hours after the onset of symptoms, head intensely retracted, pupils contracted to pin points, was cyanosed and comatose, temp. 104, pulse 150. This little girl made a complete recovery.

"In a day or two paralysis is observed. In our epidemic, we have had paralysis of one or both legs, of one or both arms, of the facial muscles, of the intercostal muscles, of the abdominal muscles, of the spinal muscles, and of the muscles of phonation and deglutition. The majority of the paralyzes are limited to the legs. This means a lesion in the lumbar enlargement of the cord. Next in frequency is paralyzes of the arms, indicating a lesion in the cervical enlargement

of the cord. The shoulder muscles, especially the deltoid, are very prone to suffer, and it is said their complete recovery is rather uncertain. One of my patients is the unfortunate victim of such experience. Paralysis of the abdominal muscles is indicated by a weakness of one or both sides of the muscular sheath outside of the rectus. One of my cases shows this deformity and is obliged to wear an abdominal binder for comfort.

"When there is paralysis of the spinal muscles, the child cannot sit up; and when the neck muscles are affected, it cannot hold up the head. We have had examples of this sequellae.

"Paralysis of the intercostal muscles due to extension upwards from the lumbar enlargement and downwards from the cervical enlargement, and paralysis of the diaphragm due to involvement of the phrenic nerve, are exceedingly dangerous and are the most frequent cause of death.

"A close study of Infantile Paralysis was made at the Rockefeller Institute, New York, during the summer of 1911. To Dr. Draper of that Institution, I am indebted for the following pathological findings.

"The virus enters by the naso-pharynx and reaches the spinal cord by lymphatic extension. The first effect is hyperaemia and a proliferation of small round cells—lymphocytes in type—about the blood vessels running into the substance of the cord, which collection of cells may become so dense as to obstruct the circulation. The tension caused by the cellular exudate gives rise to hemorrhages and to oedema. These are the earliest pathological findings in the nervous system.

"The latter condition of the nerve cells may be the result of the circulatory disturbance, or may be caused by a specific effect of the virus. If, however, the hemorrhage and exudation are soon absorbed, there is rapid recovery of function; but if not the cell dies. Similar lesions to those in the anterior horns are found in the posterior nerve root ganglia.

"In addition to the structural changes in the nervous system, swollen areas and necrotic patches are found post mortem in the liver, spleen, intestines, lymphoid tissues and lymphatic glands.

"During the observation of the disease at the Rockefeller Institute considerable attention was paid to the character of the blood and of the cerebro-spinal fluid, but neither picture was found to be specific. The blood picture showed a leucocytosis, the polymorphonuclears very much increased, and also the eosinophiles, while the lymphocytes were diminished. The examination of the cerebro-spinal fluid was mainly chemical and cytological. It was determined that there was a moderate increase of pressure, an often striking increase in the number of cells per cubic millimetre, and in some cases an increase in the globulin content; but as already stated there were no changes that are specific for poliomyelitis."

Anaesthetic Dangers and Difficulties

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TO understand and make an early diagnosis of the Dangers and Difficulties that may arise during anaesthesia and to prevent their occurrence, or check them in their early stage, is the duty of the skilled anaesthetist. To allow a patient to drift into a dangerous condition even if he has the remedy at hand, is bad work. For example, to let a patient become blue and cyanosed from an obstructed airway, the anaesthetist should have recognized the condition from the sound of the respiratory noises, and corrected the obstruction long before cyanosis occurred.

So we will divide our troubles and strive to conquer them in detail. 1st: there is the dose effect; 2nd, the effect of Carbon Dioxide diminution and excess over normal; 3rd, oxygen; 4th, the effect of nerve irritation, usually termed shock; 5th, hemorrhage; 6th, the capacity of some patients to bear more punishment than others; 7th, the personal ability of the anaesthetist. (Conditions arising after the operation, as Acidosis, Pneumonia, cannot be considered, as they will unduly lengthen the paper). All physiological statements are made from the standpoint of an anaesthetist.

1. Dose Effect—The effect of chloroform, ether, nitrous oxide, ethyl chloride, and similar drugs, is to depress the *nerve centres*. The *nerve fibres* preserve their function so that if irritated will produce muscular contractions and their other special reactions. The depression of the nerve centres of the brain is a steady orderly march. The first centres to be depressed are the last that the brain developed, so mind and thought disappear early and respiration, Vaso Motor and Cardiac in their order, are the last to be overcome.

It should next be noted that the absorbing and retaining power of tissue for these limpoid solvents is unequal. Nerve cell tissue rapidly absorbs anaesthetics but is robbed shortly afterwards by the other fats and subsequently by the other tissues. This accounts to partial extent for so-called Primary Anaesthesia, and explains why the march of events is not a regular inclined plane, nor even a flight of steps, but has the dips and rises of a semi-railway, the first dip being the greatest.

The lessons to be drawn from these facts are, that the administration should be gradual, so that the effect may be recognized and followed, always to remember that the dose that goes in the mouth requires about two minutes to show on the nerve centres; second, not to depress the patient too deeply in the dips and not to allow the operation to start during the first wave of recovery.

To carry out these as a routine with Ethyl Chloride or Chloroform even in a quiet patient, where a few deep or shallow respirations will double or halve the dose, is impossible. It is necessary to use an anaesthetic that will not induce these sudden variations. Ether is the solution and should be given as soon as the patient does not resent the smell and sensation of being smothered.

If vomiting occurs, the patient is not sufficiently deep. The head should be turned to the side and let nature take her course. Do not pull the jaw up because this opens the larynx and may result in aspiration into the lungs. Increase the dose and only if respiration becomes blocked, pull up the jaw.

If a Nitrous Oxide induction to Ether is used, Oxygen should always accompany, and the Ether introduced gradually over a period of ten minutes. If a few breaths of N₂O are given, and the Ether turned on full force, it will be followed by respiratory irritative cyanosis, a high per cent. of Ether Pneumonia, and a large amount of Post operative vomiting.

In general terms, it is impossible to give an overdose of N₂O. Asphyxia may occur if insufficient Oxygen is not administered, but overdose of N₂O with the patient a good color seems impossible. To a lesser degree, the same applies to Ether given by the ordinary methods. At room temperature or mask temperature, the dose is very nearly correct and only after prolonged administration will signs of overdose occur. On the other hand, Ethyl Chloride and Chloroform are so rapidly absorbed that a local overdose on the heart muscle can cause death almost before the patient loses consciousness.

Full strong pulse, no matter how fast, is not a dangerous sign, but a slow pulse, one less than 60 to the minute, is suspicious and if weak, is very dangerous.

With the patient apparently ready for operation, there are five signs, all of which should be present before incision is made. Even then, cases will fool the best judges. 1st, no patient will absorb enough ether in less than 10 minutes to stay quiet under injury 15 minutes, is more nearly correct; 2nd, deep regular breathing; 3rd, muscular relaxation; 4th, the lid reflex should be absent, the pupil which, after a few fluttering dilations, contracts first to a pin point, and then dilates to a normal sized pupil with normal reaction to light; 5th, absence of swallowing, and if a test is required, a breathing tube should be placed in the throat. If any of these signs is not present, the patient is not properly under. It is not wise, however, to try to make a patient's pupil dilate, who has previously received a dose of morphia.

Many signs are given for overdose, but they are simply signs of general depression, caused by shock, hemorrhage, etc. There are only two reliable signs of overdose. 1st, a dilated pupil that will not react to light; 2nd, deep, sighing, respiration with a pronounced pause between each. These are signs of very grave overdose, and should not

be allowed to develop in the average anaesthesia. The occasional special case makes its own rules, but only where there is a rigid abdomen to close should it be necessary to go down into the shadow of the valley of death.

No. 2 and 3. Should be considered together. From the standpoint of the anaesthetist, respiration is a function of *excretion*, probably Carbon Dioxide. Depth of respiration will depend on how much of this is retained in the body or its excretion is retarded.

Oxygen seems to have no effect on respiration except where it is reduced so low that cell function ceases. Lack of oxygen will not cause increased respiratory movements, nor will saturation decrease the same. Lack of oxygen will cause rigidity of the abdominal and the other accessory muscles of respiration.

Stimulation of certain nerves, such as streaking the sphincter muscles and expanding a hollow viscus as the bladder will increase respiration, but if this is done and the body robbed of its carbon dioxide as soon as the stimulation ceases, the patient stops breathing.

Carbon Dioxide has further function. It preserves the tone in muscle. It prevents acute dilation of the heart, and it preserves the shape of the tongue. It also causes the new born child to breathe. Further, if respiratory movements are deep, and the airway open the return back carry of oxygen will be good and the many troubles of cyanosis and mucous formation will be prevented. Still another function of CO₂ with deep respiration, the aspiration action of the blood into the chest, is good, and circulation is sustained. It is stated that one fourth the work of the heart can be carried on by the respiratory movements. This certainly means something in a long operation. Respiration is, therefore, Physiological and Mechanical.

The Physiological side is made safe by re-breathing, particularly during the early stages where mental excitement prevails, and also where respiratory stimuli are received from the sphincter of the rectum, the bladder, and the peritoneum.

The Mechanical side is helped by the CO₂ which keeps the muscles of the tongue in shape, and those about the jaw in tone, so that when the lower jaw is lifted, the tongue follows after. If this does not open the airway, pull out the tongue with a piece of gauze and while holding it out pack some between the roof of the mouth and dorsum of the tongue, and it will stay there. If this is not satisfactory, use a rubber or metal breathing tube.

Just here it is interesting to examine the old time chloroform death that only got a few whiffs, i.e., about half to one ounce on the mask. (Half a drachm of absorbed chloroform may be a fatal dose). It was usually a mouth or rectal case or it occurred before the surgeon started. The patient was given the chloroform and, either due to the mental excitement or the pain of the operation while not quite under, markedly overbreathed, exhausting his CO₂ and abolishing the tone

in his muscles. The pain brings the patient to, and the anaesthetist tries to cover by pushing the chloroform or during the deep breaths, the patient receives a local overdose on the heart, depressing its contractility function. Now, the patient is under sufficiently to abolish pain, breathing stops. Oxygen in tissues absorbs and cyanosis develops, raising blood pressure. With increased pressure inside the heart cavities with no muscle tone to hold, the wall and weak contractions there follows acute dilation and death.

4. Shock. This is the reaction primary of the Vaso Motor Centre to perifocal nerve injury and the subsequent reactions of all tissues that have evolved in the many generations of life from the beginning in order that the individual shall be preserved.

When the animal is conscious, stimulation of all nerves will produce this reaction when under the influence of the general anaesthetic, alcohol, chloroform, ether, etc., only the automatic nerves are in circuit with the Vaso Motor, namely the Peritoneum, the hip joint, and the knee, perhaps the sole of the foot and palm of hand, and some bones as femur.

The effect of injury is to produce a stimulation of the Vaso Motor Centre with a proportionate contraction of the arteries with the passing of the stimulus there is a *partial* dilation and relaxing of the artery. This accounts for the low blood pressure with a hard contracted artery found regularly in shock. If the stimulus is severe and prolonged, the patient dies, from acute shock. If he survives and the shock is continuous, he passes into a state of collapse with or without recovery.

The prevention of shock is to remember that General Anaesthetics are only partial preventives of this condition and to use Morphia in a dose that is sufficient to dull the sensibility of the nerve fibres and the more general use of local anaesthetics in conjunction with general. With shock established, the treatment is to get the blood back in the arteries with heat to body. Large, oz. 60 to 100, rectal injections of hot 119 F water and subsequently intravenous saline and the use of pituitary, also to as nearly as possible stand the patient on his head.

5. Hemorrhage. Just how much blood an average case may lose is not very certain, but when the average sized basin 12 in. in diameter by 3 in. in depth, is filled up with blood soaked sponges, it is time to look about and take survey and probably get out. A good test is for the anaesthetist to follow the Temporal artery on the forehead to the last point it can be felt and put an ink mark there. When this disappears, the patient is gravely depressed but not likely fatal. Death from loss of blood comes very suddenly. The patient is apparently in pretty fair shape when breathing stops, perhaps makes a feeble attempt to recovery, and dies so quickly that no measures to resuscitate are likely to avail. In head and neck cases where much hemorrhage is expected, it is a good plan to keep these parts elevated so that a reserve is kept in other parts. In abdominal cases, the reserve is obtained by keeping the head low.

6. The personality of the administrator of an anaesthetic is a large factor in the success of the operation. He must recognize and treat the mental attitudes of his patients, make his contact, diagnose the state of mind of the patient, and in a few well chosen remarks or actions, win the confidence of a total stranger in the space of about 60 seconds. Second, he must have the confidence and sympathy of the operating surgeon; either can put the other in a nasty position, and if they are not working in accord, it is better to change the team. The skilled anaesthetist will not take any unnecessary chances, and the average anaesthetist should be as unemotional as the crossing of a ferry boat. There are other times that he should be prepared to risk his reputation in the attempt to save life, where the case is in desperate condition. These chances can usually be taken because for a short time the patient is actually stimulated by an ether anaesthetic and if the operation is a short one, will not result in a death on the table. There is a marked depression, as recovery takes place, probably associated with stimulation of the vomiting center, and its reaction. So-called stimulant during operation, as pituitary, strychnine, etc., are not usually of much avail. Posture, by lowering the head, the stimulus of the surgical operation, and that of ether and carbon dioxide, will develop about all the horse power that the heart is capable of exerting. Intravenous pituitary, etc., should, if possible, be reserved to counteract at the let down, when the ether is removed.

In general, the chief dangers of anaesthesia occur at the beginning. It is here that the utmost skill and attention should be used, because a safe and satisfactory induction means a good maintenance and good recovery. A faulty induction will mean a poor maintenance and a stormy recovery.

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No. 2

Medical Societies

PROBABLY nothing gives a better indication of the healthy attitude of the profession in this province than the way in which in the last few years, our local societies have been organized and the interest that is being taken in them. At the present time, the province is pretty well covered with these societies and unless report is a lying jade, excellent work is being done by them in getting the local men together and the meetings are being enthusiastically attended. One of the great disadvantages of country practice is the difficulty men have of discussing their troubles. One of the great losses the profession as a whole suffers, is the fact that so many interesting cases met and dealt with successfully in the country, are never recorded. The local societies should help to remedy this.

At the present time, however, the tendency is for the societies to call outside men in to their meetings and to let them do most of the talking. The outside man, often a specialist, is inclined to talk on subjects that, however fascinating to himself and his kind, do little frequently to illuminate the difficulties that beset the general practitioner. For instance, a paper on bronchoscopy, on brain tumors on the value of myomectomy has little more than an academic interest for the average man in practice. He wants to know how best to treat the common cold, how to handle an acute abdomen, how to treat a fracture in a private dwelling, how to feed the baby that is not thriving, how to deal with obstetric problems. These are matters to which, while the specialist can undoubtedly bring much enlightenment, the man who has been up against the difficulties and surmounted them in a

successful and practical way far from hospitals and the help of nurses can often bring more. It is all very well to have someone describe the great value of Caesarian Section in central placenta praevia, but what does one do when one meets it of a dark blizzardy night ten miles from home?

Here, then, lies the real value of the local society. Men meeting together to discuss these common problems with men who work under similar disadvantages can teach and learn an inestimable amount of shrewd skill. Unfortunately this opportunity is not being utilized to the full at present. When we get together at our societies, even if one of our number is speaking, we tend to read papers on subjects that are out of the common and for the preparation of which we have gone to the books rather than our own experience. Realizing that fact, the Halifax Medical Society last year went in for a program of short talks with discussions on common problems and it was felt by all that the innovation was well worth while. We want more of this sort of thing. We want to hear from the man who has been able to apply a particular method successfully to some condition we are constantly meeting in similar surroundings.

But the local societies can do even more. What interests and helps them will also interest and help the members of other societies. And this is where the BULLETIN may prove itself of greater value. If the local societies will send us resumés of their meetings, particularly the clinical part, we will print them for the benefit of all. This is a matter in which we are sincerely interested and one out of which if earnestly followed up much benefit might come. If a man at Yarmouth has been handling an epidemic of diphtheria his fellow-practitioner at Inverness wants to know how he handled it. He knows he can get information on the subject out of journals and text books where ideal conditions are described but he wants to know JUST what was done by the man working under conditions similar to his own; what steps were taken in making a diagnosis, how he managed the unpopular matter of quarantine, exactly how much antitoxin was given and exactly what adjuvant treatment was employed, how the contacts were dealt with. All this valuable information, at present lost, can be spread, first through the local society and then through THE BULLETIN, to the great gain of us all.

Let us turn our local societies into forums to which every member can bring his difficulties—and his triumphs.

H. B. A.

To Pasteurize or Not Pasteurize

A London, England physician in an article in *The English Review* for December on "Milk and Health," commenting on pasteurization, says:

"Heat, therefore—in the form of pasteurization—has been put forward as a solution of the milk problem, but at the National Milk Conference at the Guildhall, Professor J. M. Beatrice (of Liverpool) said: 'Cona and Hamiel admit that *B. Tuberculosis* may remain alive even in carefully pasteurized milk. Consequently, pasteurized milk, as commercially produced in this country is often an *INFECTIVE* milk.'

"At the same meeting, Captain S. R. Douglas said: "The pasteurization of milk as carried out by the trade in this country is from the consumer's point of view, absolutely useless. As regards the middleman and milk distributor, it may serve one useful purpose, and that is to enable him to deliver to the consumer a quantity of milk which would otherwise be sour before it could be distributed." "The *Lancet*' stigmatizes the process as 'A trade practice to enable initially dirty milk to survive as a commercial product.' "

ENGLISH VERSUS CANADIAN.

Believe it or not the following was an Associated Press despatch appearing in Canadian papers the latter part of February.

LONDON, Dec. 24.—(A. P.)—The medical profession of England is lagging behind "its more progressive brethren of Canada and the United States" in the opinion of Sir W. Arbuthnot Lane, who has just returned from a trip to North America and the noted British physician, writing to the *London Times*, says he does not believe the Old Country can afford to stand still.

Dr. Lane, in his letter, contrasts the attitude of the British medical men toward the public unfavorably with that of the North American countries. He says of this trip:

"What struck me most was the very intimate relationship and close association which has sprung up between the medical profession and the lay public, in the last few years. The barriers between our professors and the public because of the autocratic attitude assumed by a section of the medical community fortunately has now quite disappeared in Canada and the United States. The struggle is taking place here, and if a similar degree of intelligence is exhibited on this side of the Atlantic, our profession will join hands with our American colleagues in carrying forward the standard of progress in education."

Halifax Branch of the Medical Society of Nova Scotia

A REGULAR meeting of the Halifax Branch was held at the Victoria General Hospital on the evening of Dec. 2nd, 1925. Thirty-nine members were present. A number of exceptionally interesting cases were shown.

DR. W. H. EAGAR showed a patient, a young man, in whom a large intrathoracic tumor which had caused practically total disability had disappeared under deep X-Ray therapy.

Dr. Eagar also exhibited a number of X-Ray plates showing the effects of the intravenous injection of tetraiodophthaim as employed for the diagnosis of gall bladder conditions.

DR. G. H. MURPHY presented a case which had been admitted to hospital that day suffering from wounds, the result of the accidental discharge of a rifle. The X-Ray showed a fragment of the bullet lodged in the lung, and owing to a wound of the abdominal wall, there was also suspicion of injury to the viscera. However, as twelve hours had elapsed since the accident and no alarming abdominal sign had developed, it was decided that the latter injury was superficial.

Dr. Murphy also exhibited a case of compound fracture of the tibia and fibula which had made a very nice recovery.

DR. E. V. HOGAN showed a case whose history dated back some three years, at which time an operation for gastric ulcer was performed. This was later followed by gastro-enterostomy. The scar of the wound, which had never properly healed showed a tremendous keloid development with an ulcer superimposed. The condition had improved greatly under radiation.

Dr. Hogan also showed X-Ray pictures of a case which had just been admitted to hospital, the result of an automobile accident. In this case there was extensive comminuted fracture of both bones of the leg.

DR. H. K. MACDONALD presented the case of a man who had been operated upon some months previously, before admission to the Victoria General Hospital for a supposed condition of varicocele. Further examination after admission revealed a large hydromphrosis of left kidney. At operation two aberrant vessels were found, one entering each pole. A plastic operation was performed and there is every indication of a good result ultimately.

DR. W. ALAN CURRY presented a very unusual and most interesting case, the diagnosis of which was cirroid aneurysm. Patient was a man aged 27, who while sparring with a friend received a blow on the left side of the face. Immediately a swelling appeared and rapidly

enlarged until it extended from the top of the head to the angle of the jaw. The upper eyelid was practically unrecognizable. On admission to hospital, several days after the accident, there was fluctuation all over this area and elevation of temperature, so operation was decided upon. A very large amount of clot was removed; but very free hemorrhage occurred which could not be controlled by ordinary measures, so it was decided to ligate the left external carotid artery. After 48 hours the packing was removed from the cavity; but the hemorrhage recurred. Four days later, as the patient was showing signs of exsanguination the right external carotid was ligated. Since then there has been no bleeding and the patient's condition is much improved.

DR. F. G. MACK showed two cases of tertiary syphilis, one a girl aged 19 and the other a man aged 35. The interesting feature in the first case was the rapidity of development of the 3rd stage: and in the latter case the tremendous ulceration of both legs.

Following the adjournment of the formal meeting, the Society members were the guests of Mr. W. W. Kenney, Superintendent of the Hospital at a very enjoyable supper.

A regular meeting of the Halifax Branch was held in the Medical Science Building on the evening of Dec. 16th, 1925. Fifty-two members were present. After the routine business has been disposed of, DR. JOHN STEWART showed a number of most interesting photographs just received from Sir George Beatson. These were of cases which had been operated upon in Lord Lister's clinic forty years ago. One, wiring of the patella, showed the wire still in situ. Function was unimpaired. Another, excision of the elbow for T. B. C. was also functioning normally.

DR. T. C. ROUTLEY, General Secretary of the Canadian Medical Association addressed the meeting, outlining the work of the Association, and explaining the plans for the extramural post-graduate course.

DR. J. A. NUTTER, Orthopedic Surgeon to the Montreal General Hospital then delivered an address on "Paralytic Deformities, Especially in Childhood." The speaker first reviewed the anatomy and pathology of Infantile Paralysis. He divided the disease into three stages:-- 1. pain, 2. paralysis, 3. recovery. In the first stage rest is essential. Drugs he considers useless. Immersion in warm water gives relief. Deformity such as foot-drop, flexing of the knees, etc., must be carefully guarded against. Applying a plaster cast and then cutting it in half and using the back portion is a good method to employ.

The convalescent stage lasts about two years, and during this period, he uses braces together with massage and electricity. The latter is overrated. Baking is good, muscle training may be employed; but care must be taken not to cause fatigue of the muscles.

We should wait at least two years after the onset of the disease before planning any permanent operative measures.

Dr. Nutter then went on to speak of the deformities associated with hemiplegia. In this class of case a large percentage of the patients are weak-minded and some idiots, which complicates any attempt at correction of deformities. In these cases, avoid confinement, and allow lots of fresh air.

Obstetrical paralysis chiefly affects the 5th and 6th cervical nerves, producing deltoid paralysis. Putting the arm up at right angles with the fingers pointing upward will prove very effective in this condition.

Dr. Nutter's paper was illustrated with some most interesting lantern slides.

At the conclusion of the address a vote of thanks was moved by Dr. P. Weatherbe, seconded by Dr. V. L. Miller and enthusiastically endorsed by the meeting.

A regular meeting of the Halifax Branch was held in the Medical Sciences Building on the evening of January 13th, 1926 at which 28 members were present.

The speaker of the evening was Dr. H. W. Schwartz who dealt in a masterly way with the subject of "Purulent Disease of the Accessory Nasal Sinuses." He first described the anatomy and physiology of the parts affected, showing a number of very excellent dissections and moist specimens, as well as several drawings.

It was pointed out that respiratory obstruction in adults was rarely produced by adenoids, the most likely cause being a deformed septum. "Cold in the head," so called, is a sinusitis in a well-drained nose. A cold which does not clear up goes on to pus formation in the antrum. Owing to its anatomical formation douches do not clear the cavity.

Different types of cases were quoted to show the varying course of the disease, and it was pointed out that the sinus semilunaris is the drain for all the sinuses.

In acute cases the symptoms vary in different individuals. In some there is pain, in some discharge. Odor may or may not be noticed. Neuralgic frontal pains may be severe.

The duration of the acute stage is usually not over one month.

Carious teeth are not now generally regarded as a causative factor.

Dr. Schwartz quoted from reports of several interesting cases, and described the methods employed in examination of patients in order to arrive at a definite diagnosis.

Discussion of Dr. Schwartz's paper was taken part in by Drs. MacLennan, Kirkpatrick, Doull, Cunningham and Keshen.

OBITUARY

RALPH OWEN SHATFORD, M. D., C. M., Dalhousie University 1908,
Londonderry.

Dr. R. O. Shatford of Londonderry died February 4th, after a short illness of pleuro-pneumonia. He was born at Hubbards 43 years ago. He practiced medicine at first in Prince Edward Island, and for a short time also at Nappan. For the last 14 years he has resided in Londonderry and his practice has been a very extended one, as he and Dr. Johnson of Great Village were practically the only doctors to cover a northern and western area of from 20 to 30 miles. From the beginning of his residence at Londonderry, he was prominently identified with the Colchester-Hants Medical Society and recently served a year as its President.

Being a member of a family well recognized as prominent in civic, ecclesiastic and literary affairs, as might be expected he took a full share along these lines, although engaged in a very strenuous practice. He was a genial and public spirited citizen and for several years represented the district of Londonderry in the Municipal Council. He was also a prominent Mason and was a Past District Deputy Grand Master. In his immediate family he is survived by his wife formerly Miss Mabel Grant of Halifax and six children, the eldest 14 years of age and the youngest less than 2. For several days previous to his illness, his daughter Nora was seriously ill, also with Pneumonia. Canon Shatford of Montreal is a brother of the deceased.

His death coming unexpectedly and at such an early age is a great shock to his friends and acquaintances, and to the members of the Medical profession who had the pleasure of his acquaintance. The sincere sympathy of the entire profession will be extended to his widow and family.

DR. ALEXANDER MACNEIL.

Many doctors throughout this Province will receive with sorrow the news of the death of Dr. Alexander MacNeil at his home in Summerside, P. E. I., on the 7th inst. Dr. MacNeil was 75 years old, and up to two months ago, when illness began to bear heavily upon him, he was in active practice, doing the rounds of a heavy medical and surgical practice and doing them with that thoroughness, skill and devotion which marked all his efforts and placed him at the top of his profession in his native province. The Editor of The BULLETIN enjoyed the acquaintance of Dr. MacNeil only in his later years, but his opportunities were ample enough, and he easily fell under the sway of his kindly personality and sterling integrity. He had many of the characteristics frequently attributed to his race; thrifty, canny

self-possessed; a big bunch of quiet humor and an ample share of the humanities. "Uncle Alex.," as he was affectionately called by his friends, enjoyed a wide popularity. He was well-known at many of the big clinics in Canada and the United States; for he sought to keep to the front in his work. He fulfilled to the letter the Osler dictum which requires that a man keep his mind active and fresh by attending medical societies. He was president of the Maritime Branch of the American College of Surgeons, in 1924, when we had a most successful meeting in Charlottetown. An active member of the Canadian Medical Association he found time to attend the Annual Congress of the American College of Surgeons and it was at these conventions, we so often met him and enjoyed his companionship. He was, too, a past president of the Prince Edward Island Medical Society and a member of the Medical Council of Canada.

He was in attendance at our Sectional Meeting of the American College of Surgeons in Halifax last September. He was not in the best of health then, but as he remarked, "I wanted to come here because the Halifax men turned out so well at the Charlottetown Meeting." His Scholarship was sound. With post-graduate courses in the Old Country, the States and Canada, he was a fully equipped man, he did his work well, and, while the profession in these provinces is the better for the inspiration of his life and labors, it is the poorer too, because a leader has gone out from amongst us, and there is mourning in our ranks.

"And when the angel came and showed the names of them
That love the Lord the best;
Lo, he that loved his fellow-men,
Led all the rest."

On January 30th, Mr. A. S. MacIntosh, a druggist in Oxford, died suddenly. He was 72 years of age. He was one of the leading citizens of that town and had taken a very prominent part in all civic and church matters. Dr. D. MacIntosh of Pugwash is a brother of the deceased.

The death occurred recently in Port Huron, Mich. of Dr. Samuel K. Smith, who had been in practice there about 35 years. He was born at Liverpool 50 years ago, he graduated at Acadia University, and received his Medical Degree from Columbia University. He was a son of the late Nicholas Smith, for a considerable time Principal of Liverpool Academy, and a man who was very influential in Educational work in this Province a number of years ago.

The father of Dr. A. H. Gannon of New Waterford died recently at his home in North Sydney. He was one of the oldest and most respected citizens of the latter town.

PERSONALS

BORN—On February 4th, a son to Dr. and Mrs. D. A. McLeod.

Dr. D. J. MacGillivray of Antigonish is practicing in New Briton, Conn.

Mrs. Gourley, wife of Dr. J. McC. Gourley of Sheet Harbour, is at present in the Victoria General.

Dr. and Mrs. F. R. Little of Halifax, are spending the month of February in Montreal, New York and Chicago.

Among the passengers sailing for England by the "Assonia" February 2nd was Dr. H. E. Kendall of Windsor.

Dr. P. S. Campbell of the Provincial Health Department, held a Tuberculosis Clinic in Annapolis Royal, February 11th.

Mrs. MacAulay, wife of Dr. J. F. MacAulay of Sydney, was recently quite ill at Baddeck; but has now fully recovered.

A newspaper clipping states that Dr. H. K. MacDonald has been appointed Consulting Surgeon to the Nova Scotia Sanatorium.

Dr. Grant Flemming and Dr. R. St.J. McDonald of Montreal were recent visitors in Halifax, looking over the milk situations.

Dr. L. W. Johnstone M. P., of Sydney Mines is making very pertinent inquiries regarding coal freight rates in the Federal House.

Dr. K. K. Blackadar, Dalhousie 1916 is looking after the practice of Hon. W. N. Rehfuss, during the session of the local legislature.

Dr. Duncan Murray of Pictou, was recently a patient in Camp Hill Hospital. He has now returned to his home much improved in health.

Dr. J. W. Smith, was recently a patient for a few days in the Victoria General Hospital. He has fully recovered and has returned to his work.

Dr. J. A. Doull, a former New Glasgow boy, and a brother of John Doull, M. P. P., who has been for some time on the staff of the John Hopkins University, has been sent to Rio Janiero to do special research work. Dr. Doull was a graduate of Dalhousie University in 1914.

Mrs. Penny, widow of the late Dr. L. T. W. Penney, New Germany, after an extended visit in Montreal, has again returned to her former home.

The Ontario Equitable Life & Accident Insurance Company has elected as one of its Directors, the only one in the Province, Dr. Charles S. Morton, of Halifax.

At the recent meeting of the Halifax Country Club, Dr. H. K. MacDonald was elected as one of the Directors. Dr. Allan Curry was one of the retiring Directors.

Wilfred A. Buckley, son of Dr. and Mrs. A. F. Buckley of Halifax, was married February 6th, to Miss Beatrice Francis Baker of Chicago. Mr. Buckley is connected with Y. M. C. A. work in Chicago.

Dr. J. J. Roy and Mrs. Roy of Sydney, returned the first of February from a very pleasant two months stay in Florida. The storms in early February must have been a great change for them.

On January 8th, Dr. M. E. Armstrong of Bridgetown, had a narrow escape from serious injury, when shortly after starting the kitchen fire, the range exploded. Fortunately he was not injured at all.

In a United States cemetery there rests the remains of a local dentist, whose epitaph reads as follows,—

Stranger! approach this spot with gravity,
John Brown is filling his last cavity.

Dr. E. B. Muir, Dalhousie 1925, is on the staff of the Nova Scotia Sanatorium. In the January issue of *The X-Ray*, he contributed a very readable article "The Outline of the Causation of Pulmonary Tuberculosis."

The heavy snow storms of early February fully recalled the early days of pioneer medicine. Many country doctors had thrilling experiences. Dr. John Stewart, Upper Stewiacke and his driver were lost for several hours one night.

Dr. W. B. Moore of Kentville, left January the 25th for Saint John, N. B., whence he will sail on an extended trip to the Mediterranean. He will spend a very considerable time with his son Dr. Hugh Moore, in Egypt, who is attached to the Imperial Army. All will join in wishing this talented and well-known member of our Profession may enjoy himself thoroughly. The Dr. has even suggested that perhaps he would not again take up active practice.

At a recent 50th marriage Anniversary in Upper Stewiacke, besides the bride and groom, there were present the bridesmaid and groomsman, in the presence of Dr. and Mrs. Robinson Cox. That same day they celebrated their 45th Anniversary.

A notice appears in a Kentville paper that Dr. W. B. Moore states to his friends and patients that Dr. J. W. MacIntosh, Dalhousie 1922, will be his successor in practice in Kentville. It may thus be inferred that Dr. Moore has decided to retire from active work.

The brother of Dr. Prescott Irwin of Shelburne, Mr. R. Grandy Irwin, was married February 11th to Miss Katherine Bruce of that town. He is a son of Hon. R. Irwin, ex-speaker of the House of Assembly. Unfortunately they will leave Nova Scotia and reside in Honolulu.

Among those recently going to the West Indies for a vacation was Dr. C. W. McQueen of Amherst, who left for Bermuda on February 12th. Previous to his departure, he was banqueted and presented with a travelling bag. It is, of course, needless to say that a pleasant time was had by all present.

Dr. J. W. McKay of Truro, left early in February for Montreal. He will do post-graduate at McGill University and will particularly specialize in X-Ray and pathological work. This will be for the purpose of fully qualifying him to do this work when the new Colchester County Hospital is opened in Truro during the coming summer.

The Annual Report of the work of the Nova Scotia Sanatorium, presented to the Legislature by Dr. A. F. Miller, the Superintendent states that 56% of those applying for treatment were in an advanced stage of the disease. This is not a step towards the lessening of the number of cases, and it is not a good showing for the medical profession.

Among individual gifts to the Library of Dalhousie University, is one by Mr. A. H. Buckley of Halifax, of a framed enlarged photograph of James Fillis Avery, M. D., who was one of the original Board of Governors of the University, when it was reorganized in 1863. Dr. Avery founded the first prize offered by the University—The so-called Avery prize.

Two rather important publications have been recently discontinued or rather merged in their chief newspaper issue, namely, the Sunday Leader, now fully merged with the Saturday issue of The Herald and Mail, and the Nova Scotian, now identified with the Friday issue of The Chronicle. We must feel regret, that the latter, after so many years of usefulness, should lose its identity.

Medical men do not shirk their civic duties, as has been seen in Federal and Provincial Elections in 1925. Town and Municipal elections form a usual opening for each New Year. The new Municipal Councils for 1926 contain a good proportion of the medical profession. As to towns,—Dr. W. R. Dunbar, has been elected Mayor in Truro, Dr. O. B. Keddy is again Mayor of Windsor, so also is Dr. H. B. Havey again Mayor of Stewiacke. Dr. S. G. McKenzie of Westville is the only new Mayor who has not previously filled the office.

The town of Kentville is quite interested in the project of a new hospital for which a considerable grant of land and buildings has been donated. That, of course, is a little in the future as yet; they have, however, engaged a V. O. N. who is now at work in that town. At a recent Ladies' Night of the Rotary Club, one of the verses of a character ballad sung by one of the members was as follows:—

Kentville has a V. O. N.
Came the other day.
Now we hear that all the men
"Don't feel so well," they say.

Supplementing a reference elsewhere to the birthday anniversary of Dr. Augustus Robinson, the Annapolis Spectator furnishes the following tribute to his long years of service.

A TRIBUTE TO THE DOCTOR.

DEAR EDITOR:

May I add another expression of good will and affection to those received by Dr. Augustus Robinson, "the first citizen" and "Beloved Physician," on attaining his ninetieth birthday, Jan. 11th. For sixty years of his sixty nine years of practice I remember his coming through sultry heat and winter frost, with healing and comfort to our family and our neighbors, sometimes far afield, and all held him in affectionate regard, with faith and trust in his skill. I found an account book last week belonging to my father, in which occurred an account with Dr. Frank Robinson dated 1859. We spoke of them as Dr. Frank and Dr. Gus—and together or separately they pulled us through some serious times—"At evening time it shall be light."

E. McCLELLAND, Jan. 19.

THE OLD DOCTOR.

We always liked to have some trifling ill,
So we could send for him to come, and hear
His sprightly comment on things far and near,
Flavored with kindness, like the sugared pill
He gave us for each slightest ache or chill;
And when there came a cause for graver fear,
We saw with hopes upheld by quickened cheer
His gaunt white pony toiling up the hill,
He held no cult of new and subtle arts,
Yet his keen skill their presence might have shamed;
Father-confessor to a thousand hearts,
He solved more woes than those their bodies claimed.
Strong, human, wise, he eased their souls of pain,
And made both flesh and spirit whole again.

On January 11th, Dr. Augustus Robinson, the veteran physician of the Province, celebrated his 90th birthday and was the recipient of many tokens of respect by the people of Annapolis Royal. Dr. Robinson graduated from the University of Pennsylvania in 1857, and has completed 69 years of practice. A year ago he was laid up for several weeks; but he is apparently going just as strong to-day as any time during the past 20 years.

The engagement has been announced of Dr. E. Murray Briton, a graduate of Dalhousie University, to Miss Dalley of Quincy, Mass. He is resident physician of the City Hospital there.

Dr. Hector A. Frant, who formerly practiced at Whycomagh; but who was recently practicing in Vancouver, B. C. has arrived in North Sydney and will practice there. He purchased the residence of W. J. Davis, manager of the Bank of Nova Scotia.

The Profession will regret to learn of the recent severe illness of Dr. D. W. N. Zwicker of Chester. Dr. M. Haslam of Halifax is taking charge of his practice.

Early in February, the Secretary of the Bulletin, received the following announcement,—

MR. AND MRS. FREEMAN I. DAVISON
announce
the marriage of their sister
EVA BELLE BORDEN
to
DR. WILLIS BRYANT MOORE,
on Wednesday,
the Twenty-seventh of January,
Nineteen Hundred and Twenty-six,
West Roxbury, Massachusetts.

This was after an item had been written announcing Dr. Moore's departure for an extended trip. The trip will be taken just the same; but the genial doctor will have the pleasure of company. The doctor and his bride sailed at once for Southampton, and from there will visit various parts of England, France and Italy, thence they will go to Egypt, and be the guests for a considerable period of time, of the doctor's son, who is an officer in the R. A. M. C. The profession extends congratulations.

Behold the Erudition of the Chiroquack.

Letter received by a patient residing in Minnesota.

Dear Madam:

I here wish to state, I am requested to write you again and ask your kind-ness, of sub-mitting to debt you owe me for time and service rendered you in the past, which is \$47.50 if now paid at an early date at bank no-interest attached as yet.

I also wish no-be-friend-ment of requesting you, to pay, as it is due me; so thereby resume nothing more than justice by asking for same of you.

Shall gratify your kind-ness and promp-ness, of doing so without further request or challenges, to be required on same.

Education of Midwives.

Much progress is being made in advancing public health by conserving the lives of the newborn. In the South particularly, and also in communities populated largely by the foreign born, the midwife has long held an important place in the lives and esteem of the people. Her methods, usually the most crude and empirical imaginable, are being re-vamped around the newer knowledge of sanitation and cleanliness. Her work is recognized but not encouraged by health officers, who hope in time so to educate their communities to an appreciation of adequate medical attention that the midwife will find her calling obsolete. By educating the midwife to more sanitary practices, the health officer may unconsciously be educating prospective mothers to the desire for better medical care.

"What's the matter, old boy?" asked Jimmie's friend. "I've never seen you looking so seedy."

"I've got to go abroad at once," remarked Jimmie gloomily.

"Nonsense! These doctors mustn't frighten you out of your life like that."

"It wasn't a doctor. It was a lawyer."

The speaker was enumerating in impassioned tones the evils of the day.

"What we want to do," he cried, "is to get rid of socialism,, radicalism, bolshevism, communism, anarchism and sovietism."

"And, while we're about it," chimed in a weather-beaten old man, "can we throw in rheumatism?"

THE CANADIAN MEDICAL ASSOCIATION

President—J. F. Kidd, Ottawa.

President-Elect—David Low, Regina. Annual Meeting, Regina, 1925.

Vice-Presidents ex-officio—Presidents of Affiliated Associations.

Honorary Treasurer—A. T. Bazin, 836 University Street, Montreal.

General Secretary—T. C. Routley, 184 College Street, Toronto.

THE COUNCIL

A. Primrose, Toronto, <i>Chairman</i> .	A. F. Menzies, Morden.
J. F. Kidd, Ottawa.	H. K. McDonald, Halifax.
David Low, Regina.	J. S. McEachern, Calgary.
A. T. Bazin, Montreal.	F. W. Marlow, Toronto.
A. D. Blackader, Montreal.	C. F. Martin, Montreal.
T. C. Routley, Toronto.	D. P. Miller, Prince Albert.
H. B. Anderson, Toronto.	A. S. Munro, Vancouver.
J. F. Argue, Ottawa.	L. R. Morse, Lawrencetown, N. S.
L. J. Austin, Kingston.	T. A. Morrison, Regina.
J. Bell, New Glasgow, N. S.	S. E. Moore, Regina.
R. J. Blanchard, Winnipeg.	G. H. Murphy, Halifax.
G. S. Caméron, Peterborough.	T. A. Patrick, Yorkton, Sask.
A. M. Campbell, Winnipeg.	J. I. Pratt, Port Arthur.
J. G. D. Campbell, Halifax.	W. D. Rankin, Woodstock, N. B.
G. F. Dewar, Charlottetown.	W. N. Rehfuss, Bridgewater, N. S.
W. J. Egan, Sydney.	W. G. Reilly, Montreal.
W. J. Elliott, Brandon.	W. H. Secord, Winnipeg.
F. J. Farley, Trenton.	H. B. Small, Ottawa.
W. A. Gardner, Winnipeg.	F. N. G. Starr, Toronto.
W. Hackney, Calgary.	D. A. Stewart, Ninette, Man.
T. G. Hamilton, Winnipeg.	W. Turnbull, Winnipeg.
V. E. Henderson, Toronto.	J. M. Ulrich, Regina.
A. W. Knox, Weyburn, Sask.	C. H. Vrooman, Vancouver.
T. M. Leask, Moose Jaw.	S. L. Walker, Halifax.
J. H. MacDermot, Vancouver.	T. W. Walker, Saskatoon.
N. J. MacLean, Winnipeg.	N. W. Warner, Winnipeg.
A. A. Macdonald, Souris, P. E. I.	A. MacG. Young, Saskatoon.
M. MacLaren, St. John, N. B.	Geo. S. Young, Toronto.

EXECUTIVE COMMITTEE

W. G. Reilly, Montreal, <i>Chairman</i> .	T. G. Hamilton, Winnipeg.
J. F. Kidd, Ottawa.	C. F. Martin, Montreal.
David Low, Regina.	S. E. Moore, Regina.
A. Primrose, Toronto.	J. S. McEachern, Calgary.
A. T. Bazin, Montreal.	M. MacLaren, St. John, N. B.
T. C. Routley, Toronto.	F. N. G. Starr, Toronto.
G. S. Cameron, Peterborough.	S. L. Walker, Halifax.

SPECIAL COMMITTEES

Lister Memorial - - - - -	R. J. Blanchard, Winnipeg.
Conference on Medical services - - - - -	A. Primrose, Toronto.

MEDICAL SOCIETY OF NOVA SCOTIA

ANNUAL MEETING, JULY, 1926, AT HALIFAX

OFFICERS FOR 1925-1926.

President	Dr. E. V. Hogan, Halifax.
1st Vice-President	Dr. J. J. Roy, Sydney.
2nd Vice-President	Dr. L. R. Morse, Lawrencetown.
Secretary-Treasurer	Dr. J. G. D. Campbell, Halifax.
Associate-Secretary	Dr. S. L. Walker, Halifax.

EXECUTIVE

Cape Breton.

Dr. E. M. McDonald, Sydney.
Dr. D. R. McRae, Sydney Mines.
Dr. Dan. McNeil, Glace Bay.

Eastern Counties.

Dr. J. J. Cameron, Antigonish.

Colchester-Hants.

Dr. C. H. Morris, Windsor.
Dr. E. D. McLean, Truro.

Cumberland County.

Dr. J. A. Munro, Amherst.
Dr. W. T. Purdy, Amherst.

Lunenburg-Queens.

Dr. R. G. McLellan, Lunenburg.

Valley Medical.

Dr. M. R. Elliott, Wolfville.
Dr. W. F. Read, Digby.
Dr. F. S. Messenger, Middleton.

Halifax Branch.

Dr. V. L. Miller.
Dr. J. L. Churchill.
Dr. A. R. Cunningham.
Dr. P. Weatherbee.
Dr. F. G. Mack.

Pictou County.

Dr. H. H. McKay, New Glasgow.
Dr. G. A. Dunn, Pictou.

COMMITTEES

Cogswell Library.

Dr. A. G. Nicholls.
Dr. J. R. Corston.
Dr. John Stewart.
Dr. Philip Weatherbee.
Dr. C. S. Morton.

Public Health.

Dr. A. C. Jost, Halifax.
Dr. E. Kennedy, New Glasgow.
Dr. M. E. Armstrong, Bridgetown.
Dr. J. K. McLeod, Sydney.
Dr. W. N. Rehfuß, Bridgewater.

Arrangements.

Halifax Medical Society.
Editorial Board—C. M. A. Journal.
Dr. W. H. Hattie.
Dr. G. H. Murphy.
Dr. J. G. McDougall.
Dr. K. A. McKenzie.
Dr. E. V. Hogan.

Workmen's Compensation Board.

Dr. G. H. Murphy.
Dr. E. V. Hogan.
Dr. M. G. Burris.

Members of C. M. A. Council.

Dr. E. V. Hogan (Ex-Officio)	Halifax.
Dr. J. G. D. Campbell (Ex-Officio)	Halifax.
Dr. S. L. Walker (Ex-Officio)	Halifax.
Dr. W. J. Egan,	Sydney.
Dr. L. R. Morse,	Lawrencetown.
Dr. H. K. McDonald,	Halifax.
Dr. G. H. Murphy,	Halifax.
Dr. Ross Millar,	Amherst.

Nominated to Education Committee C. M. A.

Dr. K. A. McKenzie, Halifax, N. S.

Nominated to Legislative Committee C. M. A.

Dr. J. G. McDougall, Halifax.

Dr. W. H. Hattie, Halifax.

MEDICAL SOCIETY OF NOVA SCOTIA

DIRECTORY AFFILIATED BRANCHES

CAPE BRETON

President Dr. Allister Calder, Glace Bay.
 1st Vice-President Dr. D. A. McLeod, Sydney.
 2nd Vice-President Dr. D. W. Archibald, Sydney Mines.
 Secretary-Treasurer Dr. J. G. B. Lynch, Sydney.

EXECUTIVE

The Officers with Doctors McDonald, Patton and Curry. Nominated to Provincial Executive:—Dr. E. M. McDonald, Sydney, Dr. D. R. McRae, Sydney Mines, Dr. Dan. McNeil, Glace Bay.

COLCHESTER-HANTS

Officers 1924-25

President Dr. R. O. Shatford, Londonderry.
 Vice-President Dr. E. E. Bissett, Windsor.
 Secretary-Treasurer Dr. H. V. Kent, Truro.

Executive Committee

Dr. J. B. Reid, Truro. Dr. F. R. Shankel, Windsor.

Nominated to Provincial Executive

Dr. C. H. Morris, Windsor, and Dr. E. D. McLean, Truro.

CUMBERLAND COUNTY

Officers

President Dr. Wm. Rockwell, River Hebert.
 1st Vice-President Dr. J. R. Gilroy, Oxford.
 2nd Vice-President Dr. M. McKenzie, Parrsboro.
 3rd Vice-President Dr. W. V. Goodwin, Pugwash.
 Secretary-Treasurer Dr. W. T. Purdy, Amherst, N. S.
 Members of Executive Medical Society of Nova Scotia:
 Dr. W. T. Purdy, Amherst.
 Dr. J. A. Munro, Amherst, N. S.

EASTERN COUNTIES

Hon. President Dr. Geo. E. Buckley, Guysboro.
 President Dr. W. F. McKinnon, Antigonish.
 Vice-Presidents Dr. J. J. MacRitchie, Goldboro.
 Dr. John McDonald Sr., St. Peters.
 Dr. M. E. McGarry, Margaree.
 Dr. M. T. McLeod, Orangedale.
 Secretary-Treasurer Dr. P. S. Campbell, Port Hood.

Executive Committee

Dr. J. S. Brean, Dr. J. A. Proudfoot, Dr. A. J. McNeil, Dr. Alex. Kennedy,
 Dr. Owen Cameron, Dr. R. C. McCullough, Dr. B. A. LeBlanc, Dr. P. A. McGarry.
 Nominated to Provincial Executive:—Dr. J. J. Cameron, Antigonish.

MEDICAL SOCIETY OF NOVA SCOTIA

DIRECTORY AFFILIATED BRANCHES

LUNENBURG-QUEENS

Officers for 1923-24

President.....Dr. J. S. Chisholm, Mahone.
 Vice-President.....Dr. F. T. McLeod, Riverport.
 Secretary-Treasurer.....Dr. L. T. W. Penny, New Germany.

Executive

The above Officers with:

Dr. A. E. G. Forbes, Lunenburg. Dr. F. A. Davis, Bridgewater.
 Annual Meeting is held on the second Tuesday in June of each year, and other
 Meetings on the second Tuesday of August and January, the time and place of the
 two latter Meetings to be decided by the Executive.

PICTOU COUNTY

Officers for 1924-25

President.....Dr. Clarence Miller, New Glasgow
 Vice-President.....Dr. M. R. Young, Pictou.
 Secretary-Treasurer.....Dr. John Bell, New Glasgow.
 Members of Executive and nominated to the Provincial Executive:—
 Dr. H. H. McKay, New Glasgow and Dr. G. A. Dunn, Pictou.
 Benvie, S. C. McKenzie, G. A. Dunn, C. W. Stramburg, F. B. Day.
 Meetings:—First Tuesday in January April, July and October. Annual Meeting
 in July.

VALLEY MEDICAL SOCIETY

President.....Dr. E. DuVernet, Digby.
 Vice-Presidents.....Dr. G. K. Smith, Grand Pre.
 " ".....Dr. H. L. Roberts, Digby.
 " ".....Dr. W. C. Archibald, Annapolis.
 Secretary-Treasurer.....Dr. C. E. A. DeWitt, Wolfville.

Representatives on Executive of Medical Society of Nova Scotia:—

Dr. M. R. Elliott, Wolfville. Dr. W. F. Read, Digby.
 Dr. F. S. Messenger, Middleton.

WESTERN NOVA SCOTIA MEDICAL SOCIETY

President.....Dr. C. A. Webster.
 Vice-Presidents.....Dr. H. J. Pothier, for Digby.
 " ".....Dr. C. J. Fox, for Yarmouth.
 " ".....Dr. L. P. Churchill, for Shelburne.
 Secretary-Treasurer.....Dr. T. A. Lebbetter, for Yarmouth.

Nominated to the Executive of the Medical Society of Nova Scotia.

Dr. A. R. Campbell, of Yarmouth.

HALIFAX MEDICAL SOCIETY

1925 Officers 1926

President.....	DR. F. R. LITTLE
1st Vice-President.....	DR. P. WEATHERBE
2ND Vice-President.....	DR. S. R. JOHNSTON
3RD Vice-President.....	DR. V. L. MILLER
Secretary-Treasurer.....	DR. W.L. MUIR

Executive

The above Officers with
 DR. H. W. SCHWARTZ
 DR. G. W. GRANT

PROGRAMME FOR 1925-1926

- NOV. 4th. Opening Meeting - - - - - Carleton Hotel
 PRESIDENT'S ADDRESS
- NOV. 18th. Nova Scotia Hospital.
 CLINICAL EVENING
- DEC. 2nd. Victoria General Hospital.
 CLINICAL SURGICAL
- DEC. 16th. "Paralytic Deformities, especially in Childhood."
 DR. J. APPLETON NUTTER
 Orthopaedic Surgeon to the Montreal General Hospital.
- JAN. 13th. "Purulent Disease of the Accessory Nasal Sinuses."
 DR. H. W. SCHWARTZ
- JAN. 27th. Victoria General Hospital.
 CLINICAL MEDICAL
- FEB. 10th. Dental Symposium—"Focal Infection, Deformities, etc., etc."
 DRS. W. W. WOODBURY AND J. S. BAGNALL
- FEB. 24th. "X-Ray Diagnosis of Bone Conditions."
 DR. S. R. JOHNSTON
- MAR. 10th. Subjects to be Announced.
 DR. JOHN STEWART
 DR. MURDOCH CHISHOLM
- MAR. 24th. "The Surgery of Putmonary Tuberculosis."
 DR. J. H. ALLINGHAM
 Saint John, N. B.
- APR. 14th. "Recent Advances in the Physiology of Gastric Secretion."
 DR. BORIS BABKIN
 Professor of Physiology, Dalhousie University.
- APR. 28th. Annual Meeting.
 ELECTION OF OFFICERS, ETC., ETC.

The Illness of Queen Mary.

Report taken from Annales of England, by Bishop F. Godwyn, London, 1630, page 310.

About the same time an absurd (I may say ridiculous) accident happened by the Queen's own credulity and the flattery of fawning courtiers. By reason of a disease which Physitians term a Mole her belly began to swell and some other reasons giving her casue to conojectue that she was with childe, shee not entertaining the advice of any physitians but of Midwives and old women and beleeving what she desired to be, affirmed that she felt the stirring of the Embryo in her wombe. To those that are affected with this malady, that fleshy and informe substance which is termed Mola doth seeme sometimes to move but that slowly and with the generall motion of the whole belly. By these and other symptoms Physitians would quickly have discovered her disease, which unless very maturely prevented is commonly incurable; so that in processe of time her Liver, being overcooled, she fell into a Dropsy which as Fuchsius and other physitians write doth usually happen.

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