The NOVA SCOTIA MEDICAL BULLETIN

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EDITORIAL

AN ACADEMY OF MEDICINE

At the recent annual meeting of the Halifax Medical Society the Secretary reported that of a total membership of 231 the attendance at the previous six meetings varied between a low of 12 to a high of 55 doctors. Is it not time to consider reforming this organization, which contains nearly one-third of the doctors in Nova Scotia, into an Academy of Medicine?

The essential difference between the present "Society" and the projected "Academy" would be the division of the latter into sections to represent the various specialty or general practice groups under which medicine today functions. The pretense that all doctors have the same scientific outlook and one can interest an Ophthalmologist in fractures of the forearm (though the author did display a marked interest in just this only a few short weeks ago) is a delusion which can wreck the so-called clinical phase of Halifax Medical Society meetings.

True, we do use the present society for the "business" of organized medicine, but this could still be carried on in an academy at general meetings held

once, twice, or thrice yearly, as required.

There is also a danger of various groups being split off by the simple geographical differences in location of the several hospitals in Halifax. Why couldn't interesting material be available to all the practitioners of a given discipline in medicine, rather than those in one hospital? Oh, I am aware we have "society" meetings in the hospitals in rotation, but it is obvious from the attendance there is little interest in the general approach.

"The doctor's post-graduate education comes from patients, from books and journals, and from societies... Of his chief teachers, his patients, I cannot here speak... Nor can I speak of his books and journals, but on such an occasion as the present it seems appropriate to say a few words on the educational value of the medical society. The first, and in some respects the most important, function is... to lay a foundation for that unity and friendship which is essential to the dignity and usefulness of the profession.

In too many communities frictions prevail and jealousies mar the dignity and usefulness of the profession... The society comes in here as professional cement. The meetings in a friendly social way lead to a free and open discussion of differences in a spirit that refuses to recognize differences of opinion:

The society helps to keep a man 'up to the times', and enables him to refurnish his mental shop with the latest wares... It keeps his mind open and receptive, and counteracts that tendency to premature senility which is apt to overtake a man who lives in a routine".

J.H.Q.

¹ Excerpts from "On the Value of the Medical Society" An Address by Sir William Osler, January 6, 1903.

THE MEDICAL SOCIETY OF NOVA SCOTIA

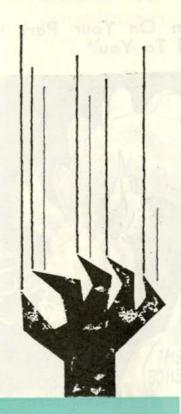
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Deceased Sept. 19, 1961.



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BRITISH DRUG HOUSES

TORONTO . CANADA

Clark, T. W., Schor, S.S., Elsim, K. O. Hubbard, J. P., Elsom, K. A THE PERIODIC HEALTH EXAMINATION. EVALUATION OF ROUTINE TESTS AND PROCEDURES: Annals of Internal Medicine, 54: 1209-1222, June, 1961.

Analysis of the first periodic health examination of 1,500 persons attending the diagnostic clinic of the University of Pennsylvania between the years 1948 and 1958 (being asymptomatic executives undergoing a "check up"), on analysis demonstrate that a diagnosis not suspect on the clinical examination resulted from sigmoidoscopy in 100% of cases, urine sugar determination 47%, electrocardiogram 30%, blood glucose 23%, chest X-ray 21%. These five laboratory procedures provided 97% of the diagnoses made by laboratory tests, six other measures together accounting for only 3%. impression was gained that if an abnormal report supported a clinical suspicion, it was accepted by the examiner, whereas if it came as an unexpected finding it might well be re-In terms of the cost per laboratory-test-derived diagnosis, all the tests were decidedly expensiveurinalysis \$80., blood glucose \$120., chest X-ray \$122., sigmoidoscopy \$143., and electrocardiogram \$260.00.

L.C.S.

"The Slightest Physical Exertion On Your Part Could Easily
Prove Fatal To You"



Halifax Chronicle Herald - Chambers Cartoon

PRESIDENTIAL ADDRESS—1962

R. F. ROSS, M.D., C.M. B.A.

Truro, N. S.

Mr. Ministers, Dr. Halpenny, Members of the Society, Ladies and Gentlemen.

It has been a very busy year in the history of this society. As you know it was the turn of Colchester East-Hants branch to have a president. I am very proud of the honour. I wish to thank all the members of the executive for their loyalty to their duties during the year. We owe a lot to these men, who sacrifice a lot of time doing the routine work. Also the members of our own branch who had the job of organizing this annual meeting. The executive secretary, Charlie Beckwith, who had a great deal of extra work to do this year. I would be remiss in my duties if I did not mention Audley Giffin, who had the big job to do on the brief to the Royal Commission, and has also been president of the Maritime Medical Care.

I want to make it plain at the beginning that I am giving my own opinions and these are not necessarily the official stand of the Medical Society of Nova

Scotia.

I must apologize for an address in which money and statistics are prominent. My topic is the Business of Medicine. I am sorry that it is the only appropriate subject at the present time. But events, not of our choosing, have made it necessary.

I note a few government ministers here tonight. These are statesmen.

When I refer to politicians I do not refer to them.

The time honoured profession of medicine is on the ropes battling for its freedom. We are in the front lines. The signs have been visible for years. Other forces have been crowding in on us, hacking away at our rights, offering to do our business for us,

The doctor of the past is being forced against his will into high finance. He must employ a secretary who is more of an expert collector than an office nurse, employ auditors, and be familiar with modern bookkeeping equipment.

Our medical society has been forced to get into big business. We run a prepaid medical plan which last year did a business of over \$3,500,000.00. Before our pension plan was put into effect, five years ago, the income tax department was taking out of the pocket of every self employed doctor about \$500.00 a year more than it should have. You can figure it out for yourself, how it has affected you over the years. The C.M.A. fought for this reform for a long time. Much of the committee work done by our society, is done trying to straighten out conflicts with government bodies, commissions, boards, etc. The C.M.A. now has a full time economist. So you can see that the business side of medicine threatens to interfere with our real business, which is to care for the ill and injured.

The past year will be long remembered in the history of medicine in this country. The government appointed a Royal Commission to inquire into the unmet needs in the health picture. We went to a lot of time, effort and trouble to prepare a brief, and told them a lot of unmet needs; but we soon became suspicious that the purpose of the commission was to explore the cost

of a government takeover of the practice of medicine in this country.

One of the things that has become apparent during the hearings of the "Hall Commission" is the widening gap in thinking between the general pub-

lic and the medical profession as to the organization of medical practise in

this country.

The vast majority of the public spokesmen, the unions, the farmer's organizations want full medical care available to all the people at all times, at government expense. They say that it can be done in a more efficient manner than we are doing at present. But they are singularly vague as to the system under which it should be carried out. If they want us to be placed at once on the civil service, on salary, there are a lot of practical problems for them to solve. Surely the unions would not deny us the right to an eight hour day, five day week, a pension plan and fringe benefits. These are not unreasonable requests. Nor would it be unreasonable for us to expect government clinics to work in, with government employed nurses, telephone-operators, pharmacists, government supplied cars, with liberal allowance for gasoline, light, heat, drugs, instruments, dressings. All these things are included in our own expense at present. It costs most doctors \$20.00 a day in overhead.

We insist that we understand the practical side of this medical care business. It is because we do not want to be exploited that we want a full say in the adoption of any plan. If state medicine is forced upon us, the first thing for the medical profession to do would be to forget its pride and organize and fight as ruthlessly as any other union. In the modern world we would have to employ modern methods. One of our demands should be that no general practitioner be on duty more than twelve hours out of twenty-four, as we all know that doctors' fatigue is at present the actual cause of many of the com-

plaints of the public.

Now all this is going to cost the public a lot of money. The number of

doctors will have to be doubled at least. But that is not our problem.

What is really happening is that an independent profession, which managed its finances according to financial state of the patient and the conscience of the doctor, has come into violent conflict with the modern demand for security by insurance and government handouts. As one authority puts it, "the modern man wants to vote himself a living, instead of working for it."

We are a very small minority in this country, we are outvoted a thousand to one, and we are confronted by four major challenges,

1. Big government and socialism.

Big business and capitalism.
 High taxation and inflation.

4. Criticism of the general public.

More and more the governments of the world are enlarging their interference in the affairs of the individual. The Robin Hood complex of taking from the rich and giving to the poor has had to be enlarged to taking from the hard working and industrious and giving to the lazy and thriftless. Few would deny the value of modern welfare payments. But having won these victories, the planners are loud in their demands that our profession be taken over.

Why us and not the grocery stores? There are hungry people too. But we have the honour to be selected. A few of our number believe it is a good idea, but the great majority do not. Why do we oppose it? There have been a lot of things written about it and sometimes the answer is not very clear to the average man. I am going to tell you some reasons why; I think you will find them quite reasonable.

We are opposed to tax supported medical care plans because:

1. They are more expensive than what we have now and place a greater burden on the people. Experience has shown that the cheapest way to pay your bills is by cash. To operate a plan costs at least 10% of the amount paid in, for overhead, and according to Parkinson's law this will have a tendency to increase. Our hope was in M.M.C. that as the size of the operation increased the overhead would go down proportionately. This has not proven to be the case, in spite of every effort. In operation we have been returning to the policyholder 100% of his payments in the form of benefits by taking pro-ration of 15%. Insurance companies in Canada have been returning on the average around 71% to the policyholder.

In addition the government would be faced with paying 30% of the population that never pay their doctor bills at all, which we have been carrying

for many years.

2. There will be a tremendous upsurge in demand for our services. Experience of the plans in operation today show that we can expect almost a 100% increase in demand as soon as the plan comes into operation. This will put a very heavy load on the shoulders of the busy practitioner without any sign of an increase in the number of doctors. If it were not for the refugee doctors here from Britain and Europe we would be hard put to it to handle our present work load. Anything free is popular. This could easily swamp us in a load of work in which quality of service would deteriorate.

3. We do not trust the promises that are given to us. Governments change, personnel of commissions change, and the assurances of today are forgotten or disregarded to-morrow. The organization that pays bills soon

develops an inordinate interest in the way the money is spent.

We have this happening in the hospital insurance plan. At the beginning the hospitals were assured of a minimum of interference in their affairs. Now it is costing the people of N.S. \$265,000.00 a year, just to distribute the money and police the hospitals. We have regional controllers, multitudious reports, interference with staff appointments and a continual downgrading of local initative and authority. A secretariat with fringe benefits, pension plans, regular pay increases and all the appearances of a permanent burden on the shoulders of the taxpayer has grown up. Can we be blamed if we fear the imposition of a similar civil service on our shoulders?

4. State medicine attracts a different type to the profession. As soon as the profession becomes part of the civil service it attracts the man who want a civil service job with security and regular hours for life, and not the ambitious, risk taking, questioning type who makes the great discoveries of a Banting or a Best. Nor can we compete with other professions for top

quality personnel, in this day of competition for top quality men.

5. State medicine interferes with the doctor patient relationship. This is not true of all plans. But when a patient selects a doctor and goes to him with his problems he pays that doctor a compliment which is a challenge to the physician to take a personal interest in him and do his best for him as a doctor. This relationship, of trust answered by trustworthiness, is priceless to the patient and the doctor. But how can it be preserved if patients are allotted by a third party.

6. We are afraid that our services will be lumped in with drugs, hospital services, disability payments, glasses, ambulance services, nursing care, crutches, girdles etc. In such a plan the doctor always comes last. In New Zealand at the beginning drug costs and medical costs were equal, \$7 million and

\$8 million. At the end of ten years drug costs had increased \$12 million to \$19 million while medical costs had gone up \$4 million to \$12 million. The costs of the whole scheme had gone up \$35 million during the same time. The doctors' share decreased from 30% to 20%. When the doctor comes hat in hand seeking an increase he is told there is no money. This invariably happens when our services are included in a plan with hospital, drug and other services.

7. We fear an economic strait jacket. A plan would have the authority and rigidity of the law. Grievances would take years to correct. We've seen that take place in our time with the Workmen's Compensation Board. It takes years to make an adjustment and when made it is already out of date.

8. We fear that we will not have the say in the organization of medical care that our training and experience warrants. We feel that we know and understand the medical need of the population. In Saskatchewan the advice of our profession was ignored, with the result that the condition of the plan is frankly a mess. What a time for a government to take a dictatorial attitude when the whole success of the scheme depends on full confidence and cooperation between all parties.

9. We have legal rights which must be honoured. We are men who, on our own, became doctors by our own efforts and built up practices and public confidence and good will by devotion to duty, endurance of hardships, and

the sacrifice of our leisure and social life.

We demand respect for this investment under the Bill of Rights of this country, which indicates we have the "right of the individual to life, liberty, security of the person and the enjoyment of property",—and our medical knowledge is our principal property—"and the right not to be deprived thereof without due process of law".

Now this may sound rather negative and discouraging. But we are not obstructionists. We realize that there is a lot of dissatisfaction with the present system. Recent polls of the public have shown an alarming lack of faith in us. The public, which seems willing to trust us with their lives, does not trust us much further. Many of them seem to be jealous of any pros-

perity which we may demonstrate.

What have we to offer on the positive side? We have always been extremely sympathetic with the public. We know that sickness can be a financial disaster. We want to organize the economics of medicine in accordance with our experience, the needs of the public, and the needs of our profession. This has resulted in the formation of the prepaid plans which have been developed all over the country under our sponsorship. These could be readily adapted to the whole population by a partial subsidy for those who are unable to cover their own bills. At the present time M.M.C. is the largest single medical care agency in N. S., caring for about one-sixth of the people. The Nova Scotia government has been a valued customer of our plan for many years. I believe that they trust us. I believe that they know that we have the knowledge and experience to do this job to the satisfaction of the public and the medical profession as well. This is our answer to the demands of the people. This is our answer to socialism. All over the world socialism is being tried and has been tried. It is fine in theory but it has always lacked one thing that seems to be necessary to the ordinary human being. That is incentive. Why is it that in free countries there is an abundance of goods and food and a surplus of manpower, while in socialist countries there is a shortage of food and goods and overwork, with compulsion and fines replacing cooperation and initative? When a man abandons his God given right to manage his own affairs and passes it over to somebody else, everybody's business is nobody's business and in many cases nothing is done. When we are responsible to the government instead of our patients, I fear for the patients.

Not only the socialists but the capitalists are affecting medicine more and more. Characteristic of this age has been the development of enormous insurance companies. We have all been customers of these companies, we have all been examiners for these companies and many of our doctors are full time employees of these companies. Many have been founded by doctors. Not until we began to have patients' insurance forms poked into our faces more and more frequently did we suspect that these very smart people were taking over a lot of our business for us, setting up fee schedules, and doing our collecting. The trouble is that the insurance people are averaging 29% on this business and charging it to us. These are the best companies. The largest of the sick and accident companies doing business in Canada last year took in \$10 million in premiums and paid out roughly \$5 million to its policy holders. good business practise, showing that they have a very healthy group of selected customers and very strict claims department that weeds out promptly any accident prone or sickly people. But it leaves us with the rest. And it does not fill the unmet medical needs.

These companies, having horned in on our livelihood, and having found it very profitable, appeared before the Royal Commission last fall and offered to sell our sevices to the government cheaper than any other plan offered. I am sorry to say that their program was presented by a doctor. I am also sorry to say that the federal government bought their bill of goods for the federal civil service. By this plan, which has a \$50.00 deductible feature, the civil servant pays three ways for his services, first by paying his doctor bill, up to \$50.00, second by paying his premium, and third by taxation when the government pays its part of the premium. If the government would help the M.M.C. as it helps the insurance companies we could render a full comprehensive service at little more than half of our present premium.

Another business which is affecting us more and more is the drug business. The dispensing druggist with his shelves of basic drugs, compounding prescriptions is hardly needed any more. On his shelves are the ready made proprietary patented medicines of the big drug houses. Their preparations are much more elegant, the names usually easy to remember and easy to prescribe. I view with some uneasiness the recent trend whereby our old and trusted Canadian firms are being gobbled up by great international combines. This frequently results in the replacement of well tried, standard prescriptions by very expensive highly advertised wonder drugs, some of which are later found to be dangerous or disappointing. After all, morphine, phenobarb, codeine, atropine, Pot Iod., Ammon. Chlor. are wonderful too. It is our fault if they are not used more.

When we give a patient a prescription we are presenting these drug companies with a captive customer who depends on us to prescribe what is best for him. It is our responsibility to see that he is not exploited. And the drug companies owe it to us not to exploit our patients. We get blamed for this because when the patient complains about the cost of his medicine, the druggist says, "your doctor prescribed it". The high cost of medical care, of which we hear so much, is frequently the high cost of medicines. And much of this is our fault. We take the easy course and prescribe without thinking of the cost, or are too lazy to write out a prescription of our own.

The drug companies have their problems too, we must admit. Their executives are caught up in the modern squeeze of higher corporation and sales taxes, higher overhead, terrific competition, high research cost, and the demand of the shareholders for their dividends. The drug companies, the druggists and the medical profession, have a joint responsibility here. If we do not meet it we are just inviting government intervention. We can see the signs in Alberta.

The big government of the present day is bound to result in high taxation. This is another factor which has changed the entire medical picture and has added to the cost of medical care. Many an older practitioner can remember the days when bookkeeping was rudimentary if at all existent. Overhead was very little. The advent of the income tax, the arrival of grim faced auditor in a doctors office meant the end of the pants pocket era.

For some reason we have been favorite targets of these gentlemen, mainly because we paid too much attention to our patients, and not enough to our books. But now we have to employ full time competent bookkeepers, auditors, and run our practises not as a humanitarian project, but as a strict business proposition. Overhead has increased tremendously, and the high taxes plus the overhead has absorbed most of any increase in the medical fees we receive. Add this to inflation and we see that we are gradually being involv-

ed in a cost squeeze which is becoming serious.

When I started practise you could trade a Ford car after a year's service for four appendectomies. Now it takes nearly thirty. You could do the same with ten tonsillectomies, now it takes a hundred. The average doctor pays one dollar to the government for every patient he sees in his office. The policy of paying out large sums of money for no service rendered adds directly to the cost of living. Every cent of this money has to come from someone. This puts up the cost of everything. The pensioner soon finds that his pension will buy less. In due time after many letters have been written to the paper, up go the pensions. Then up go the taxes. It is a vicious circle, with no end that I can see.

Sooner or later someone will have to have the courage to put a stop to it. But that time has not yet arrived, as we survey the platforms of the parties in this election. The politicians are like robins stuffing worms down the throats of their offspring. The only trouble is that they are having a little trouble pulling one worm out of the prairie. For years it has been said that our profession would be split when the challenge came. Perhaps we will stick together this once. I hope so. The men of Saskatchewan are giv-

ing us an inspiring lead.

But enough of the topic of the business of medicine, I would much rather have given you an inspiring account of the great progress being made on all fronts by our profession. Brain surgery, vascular surgery, anaesthetics, psychiatry, and all other fields have advanced unbelievably during our time. Our field of knowledge is becoming so extensive that it is impossible for one man to keep in touch with it. Is it any wonder that we have little time to look up from our work and studies and see the world as a whole and understand the great movements of the age. In our cloistered lives we were too busy and bound up with the details of treating sick people that we were unaware of the currents that were undermining our position in society. We are taken by surprise when we find that we are unpopular, and regarded by many as a mercenary selfish group that is getting rich on the suffering of the people. The public resents it when the doctor blossoms out with a Cadillac or a Thunderbird or a yacht. They remember these things when they get their bill at the end of the month.

Is it any wonder that the harrassed bill payer turns to the modern great white father, the state, for relief when it is offered. It has always been a wonder to me that so many people have so little faith in themselves, and so much faith in the promises and the ability of the candidates for governmental office. The state is becoming the modern, all powerful god, to which everyone turns for help. The modern man seems obsessed with security, spending the best years of his life putting every cent into insurance and pension plans, which a coronary will make sure he does not enjoy.

As he abandons the old gods, man unconsciously seeks new, and often chooses the state. Germany did that with tragic results for the whole world.

One hesitates to predict what will eventually happen to the character of our citizens when they are surrounded by total security. When there is no challenge to overcome, where will they develop the strength of character to overcome the dangers of the future?

In any case our status in the world has dropped. A recent poll showed that 80% of Canadians believe that the government could operate a medical care plan better than we could. We should not humbly accept this verdict. We should attack and demand a few things of our own. I suggest that we chase the politicians around a little and demand that all statesmen have a thorough physical and psychiatric examination. We have good grounds for this, when we remember that the last tragedy of war was initiated by Hitler, a paranoic, Mussolini, a lunatic with grandiose ideas, Stalin, a sadistic murderer, and Chamberlain, who was exhausted by advanced malignancy. The Yalta agreement from which many of our present troubles come, was negotiated by this same Stalin and Roosevelt, who had had a minor stroke. Unhealthy people are likely to come up with unhealthy answers to problems. Let the statesmen of the world clean up the problems of war, trade barriers, starvation, economic stagnation. These are pressing.

These may seem like harsh words but we are being pushed around and will have to push back. We have won this right by the long hours that we spent in study, by the millions of dollars worth of free service that we have given to the poor and needy, by the leisure hours that we have sacrificed on Sundays, holidays and late at night, in the service of the people of this country.

We have a right to be heard. Don't let us downgrade our position in this society. We are a trained, experienced, educated, loyal, taxpaying group of citizens, with a right to a say in the conditions of our lives. A health plan cannot operate five minutes without us. And we should make it plain to the people of this country, that we will not willingly give up our legal rights and that a health plan, if it is adopted, must suit us as well as them.



THE ONLY WAY

Largely overlooked in the mushrooming controversy surrounding the Saskatchewan health plan, and "state medicine" in general, is the fact that the discussions—if they can be so dignified—have tended to be mere debates. The one, central key fact that has been lost amid the various charges is that no health plan can operate for even "five minutes" without the support of the medical profession.

This was made abundantly clear by the retiring president of the provincial medical society, Dr. R. F. Ross of Truro, in his address to the annual meeting of the society at Halifax this week. It is being confirmed by the doctors of Saskatchewan in their refusal to work under the provincial government's comprehensive, compulsory scheme which is slated to go into effect on July 1.

Such a consideration has nothing whatever to do with the rightness or wrongness of the doctors' stand. "Freedom", "dictatorship", "ethics", "socialism", and all the other emotional terms that are being hurled, become academic only when the doctors state flatly that any health plan must be acceptable to them before they will work under it. That is, unless we are prepared to use the power of the state to force the members of medical profession against their will—and to prevent them from leaving the country.

Given, then, what certainly appears to be the united opposition of the profession to a universal, tax-supported, government-operated medical insurance plan, it is merely continuing the debate to cite the experiences other countries have had in these matters. Given, also, the politically irresistable demands of a significant portion of the Canadian people for additional protection from the dangers of financially intolerable health costs, it becomes obvious that no extreme position can possibly succeed.

Until the most recent acrimony, the country seemed to be making gradual but steady (and largely uncontroversial) progress which, while not perfect to all, at least was obnoxious to none. Free hospitalization and extension of the present pre-paid plans were but two instances of this desirable trend.

Much, of course, remains to be done. The costs of medical care for the chronically ill, the aged, the person with the lingering affliction, the low income groups and so on, are frequently ruinously high. These problems must be met, as must the necessity for increasing greatly the numbers of our medical practitioners.

None, we submit, will be solved by governmental fiat. Doctors cannot be legislated into existence, nor can a scalpel be forced upon an unwilling hand.

Only through the cooperation of governments and the doctors can improvements be made in the standards of medical care. The danger in the present situation is that the threat of compulsion resulting from unrealizable political promises on the one hand, may react in a rigid opposition to all change on the other. If this happens, everyone will be the loser.

THE EARLY MANAGEMENT OF BURNS

JAMES F. ROSS, M.D., F.R.C.S. (C)

Halifax, N. S.

The management of a thermal burn begins at the time of the injury and in the very severe burn continues for many years. Whether or not the patient survives the burn depends on the ability of the physician to overcome the shock of the early fluid imbalance, to prevent systemic infection, to treat it when it occurs and to replace tissues destroyed. The major problem in burn therapy is to overcome infection, the greatest cause of death.

The following comments are my feelings on the management of minor

as well as severe burns.

CLASSIFICATION

The severity of a burn is related to the Area of the burn and the Depth of involvement of the tissues. The area can best be calculated by the use of a chart which is applicable to both children and adults. This chart (Fig. 1) is more accurate than the method of "the rule of nine's" so frequently used. It takes into consideration the changes in area of different parts of the body with development. The depth of a burn is related to the amount of the heat and the time for which it is applied. Thus, a flame of given temperature will probably cause a more superficial burn than water at the same temperature, which soaks clothing.

The most practical classification of burns is:

(1) Partial thickness

The epidermis and part of the dermis are involved

(2) Full thickness

All layers of the skin and/or deeper structures are involved.

Partial thickness burns usually heal by proliferation of the remaining skin structures. These include those showing erythema with or without blistering. The tissues are usually pink or red and are sensitive to pinprick. The deeper partial thickness burns may be easily converted to full thickness burns by the addition of infection.

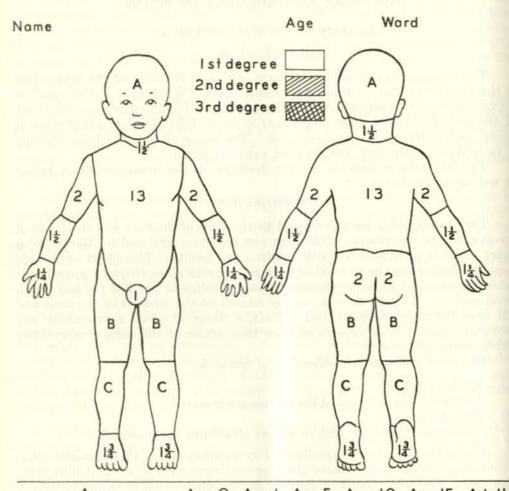
Full thickness burns must either heal by granulation and ingrowth of skin from the periphery or must be grafted. These burns are diagnosed by dryness and charring of the skin, a leathery feel to the skin which does not blister, and insensitivity of the skin to pinprick.

The extremes of these two groups are easy to diagnose but the border line

group of burns is sometimes difficult to assess as to degree.

Burns may also be classified as:

- (1) Minor—Minor burns are those with partial thickness burn, involving less than five percent of the body area, not including the hands, face, feet or genitalia, or with full thickness areas less than one inch in diameter.
- (2) Moderate—Moderate burns are partial or doubtful thickness burns, involving five to ten percent of the body area, or burns involving the hands, face, feet or genitalia. Full thickness burns, larger than a fifty cent piece, but less than ten percent of body area, are considered moderate.
- (3) Major—Major burns are those which involve more than ten percent of the body area in children and fifteen percent of the body area in adults, regardless of depth.



Area		Age O	Agel	Age 5	Age 10	Age 15	Adult
A equals 1/2 he	ad area	91/2	8 ½	6½	5½	41/2	31/2
Bequals 1/2 this	gh area	23/4	314	4	414	4 V2	434
C equals ½ leg	area	2 1/2	21/2	2 3/4	3	31/4	31/2
degree depth		_ Genit	als B	Buttock	erarm_ sThig		
		Geni	tals	Buttoc	ks_Thig		
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THE MANAGEMENT OF MINOR BURNS

These burns can usually be treated on an Out Patient basis. The burned area should be cleansed with a detergent such as Cetavlon and then washed off with normal saline of Aqueous Zephiran 1:1000 solution. The burn is covered with a non adherent dressing such as "Telfa" or "Adaptic" in preference to the wider mesh vaseline gauze dressings. This is then covered with a gauze dressing and pad and the dressing is held in place by a firm gauze bandage such as "Kling" or "Conform". No antibiotics are necessary and the dressing may remain undisturbed for five to eight days if there is no sign of suppuration. If infection occurs, then moist dressings must be applied and the local area sprayed with one of the broad spectrum antibiotics. These burns should all epithelialize by themselves. The small third degree burn will epitheliaze from the periphery.

THE MANAGEMENT OF MODERATE BURNS

These patients should all be hospitalized. The full thickness burns should be excised on the day of admission and the area skin grafted. This will shorten the hospital stay and decrease the morbidity. Partial or doubtful thickness burns of moderate degree are best treated by the exposure or open method. The burned area is cleansed as above. The blisters are deflated and the dead skin removed. The patient is then nursed between freshly laundered sheets which need not be sterile. An eschar forms in forty-eight to seventy-two hours. If the burns is partial thickness, it will heal from the remaining structures of the dermis in from ten to fourteen days when the eschar will peel off.

In a burn of the hand, the fingers are dressed separately, and best treated by the individual dressing technique. The whole hand is encased in a large,

bulky dressing with the hand in the position of function.

If partial thickness burns are converted to full thickness because of infection, they will require grafting when the slough has separated. In this doubtful group, the eschar may be separated earlier by the application of a wet dressing. Large gauze pads, soaked in a colloidal solution of equal parts half strength sodium hypochlorite solution and liquid paraffin are applied to the burns four times a day. The eschar softens and it then can be removed by scissors and forceps without anaesthetic. By diligent use of this method, the area can be prepared for grafting in approximately two weeks from the time of the burn.

THE MANAGEMENT OF MAJOR BURNS

All major burns are a threat to life and should be hospitalized in a major hospital, where modern facilities are available. If the accident occurs at a distance from a major hospital, the first aid treatment should include intravenous therapy and sedation before the patient is transported. The patient should be given a litre of 5% glucose in saline rapidly. Sedation should be given intravenously in moderate dosage to relieve pain in partial thickness burns. The patient may then be sent to hospital.

On admission to hospital, an intravenous is started and blood taken for haemoglobin and hematocrit estimation. The patient is grouped and cross matched. A Foley catheter should be inserted in the bladder and the urine which is removed is examined for albumin, sugar, specific gravity, microscopic

examination and the presence of haemoglobin.

WATER

When this has been completed, a careful history would be taken from the patient or from relatives regarding the following points:

- (1) the type of burn, for example scald or flame burn
- (2) the time the accident occurred
- (3) any treatment at the site of the accident before the patient was brought to hospital, e.g. sedation en route, local treatment to the burned area
- (4) the patient's past history with regard to any serious illnesses such as heart disease, renal disease, etc.
- (5) any history of allergies to drugs, etc.
- (6) whether or not the patient has been immunized to tetanus recently.

The patient is then given a thorough physical examination and the burn is estimated as to area and depth.

FLUID THERAPY

The early phase of a major burn should be treated completely by fluids given intravenously because of the common occurrence of paralytic ileus. For the patient's comfort, it is best to do a cutdown on a peripheral vein and insert a polyethylene catheter. The ankle or wrist are the most convenient sites.

There are several methods for estimating the amount of fluid required during the first forty-eight hours following the burn. These methods all have their advantages but the main thing to remember in all these methods is that they are a guide and not the final answer to the type and amount of fluid required. The formula which I use is: (Evans')

FLUIDS FOR THE FIRST TWENTY-FOUR HOURS

Colloid 1 c.c. per percent burn (up to fifty percent) x the weight in kilograms.

ELECTROLYTE 1 c.c. x the percent burn (up to fifty percent) x the weight in kilograms.

as 5% dextrose in water, 2000 c.c. for the average adult or 50-60 c.c. per pound in children.

FLUIDS FOR THE SECOND TWENTY-FOUR HOURS

The amount of colloid and electrolyte is decreased by one-half in the second twenty-four hours. To this is added the standard water maintenance as five percent dextrose and water. This fluid should be given over a twenty-four hour period.

COLLOIDS

The most physiological colloid is plasma. When available in quantity as single batch units, it is the fluid of choice. Serum albumen, Dextran, can also be used. Whole blood should be given in all burns over 30% partial thickness or 10% full thickness.

ELECTROLYTES

Sodium chloride as five percent dextrose in saline is probably the most commonly used. If all the electrolyte is given as such, there is a tendency for a hyperchloremic acidosis to develop. If therapy is continued over several days, Ringer's lactate solution can be substituted and is effective in overcoming the acidosis.

RATE OF FLUIDS

One half the total fluid in the first eight hours
One quarter the total fluid in the second eight hours
One quarter the total fluid in the third eight hours

of burn

ESTIMATION OF ADEQUACY OF FLUID THERAPY

- (1) The patient's general condition. Return of the pulse and blood pressure to a normal range, peripheral warmth and mental orientation are good signs of adequate therapy.
- (2) A dropping haemoglobin and hematocrit to a normal range indicates good rehydration. High levels of haemoglobin and hematocrit suggest inadequate fluid therapy.
- (3) A urine output of 20-30 c.c. per hour in a child and 30-50 c.c. in an adult are good indications that the kidneys are receiving enough fluids to function.

The specific gravity should be checked and should show a fluctuating range. A fixed specific gravity is an indication of impending renal failure. There are usually some albumen and sugar in the urine in the first days of therapy.

Renal failure is very uncommon in burn patients who have had early and adequate therapy. The usual causes are haemoglobinuria with resultant lower nephron nephrosis or failure associated with hypotension due to hypovolemia.

LOCAL BURN CARE

This should not be carried out until after the anti shock treatment is instituted and the patient is showing signs of responding to therapy. The patient should be taken to an operating room where the burned area is cleansed gently with a detergent such as Cetavlon. The area should then be rinsed thoroughly with saline and dried with a sterile towel. The blisters should all be deflated and if the exposure method is to be used, the blisters should be excised. A culture should be taken from the burned surface.

The exposure method or the closed dressing method should then be started. The arguments for and against these methods are too lengthy to be included here. If the exposure method is used, the patient is nursed between two clean, but not necessarily sterile sheets. If both sides are burned some form of frame on which to nurse the patient should be used. If no frame is available and the patient is difficult to turn because of size, then the closed method is the method of choice. The position change is important to allay the chances of the development of a hypostatic pneumonia. The open method is the method of choice in face and perineal burns.

The closed or dressing method depends on the application of a close mesh vaseline dressing as described previously. This is covered with gauze and dressing pads and then bandaged firmly.

ANTIBIOTICS

I prefer to defer the use of antibiotics until there is some evidence of an infection clinically. If any antibiotic is used, the broad spectrum ones should be deferred until they are needed.

THE EARLY EXCISION OF FULL THICKNESS BURNS

There is much controversy about the effectiveness of early excision and grafting of third degree burns. This is certainly the method of choice in small, third degree burns and should be carried out the day of injury. At this time the wound is sterile and a complete "take" of the graft should be expected. In the more severe cases, when the patient is in shock, I prefer to wait until the oligemic phase has passed (four to five days) and then to convert the large burn to a smaller one by excision and grafting, usually with a mixture of autograft and homograft. The graft is more likely to take on flattened surfaces such as the chest and abdomen. The excision can be carried out by the electric dermatome or by scalpel dissection. This is a shocking procedure and a good supply of fresh blood should be available.

Grafting is sometimes delayed for forty-eight hours after removal of the eschar, if there is much bleeding of the body area. No more than 25% of the body surface should be excised at any one time. Two teams of surgeons work-

ing together can shorten the time for excision and anaesthesia.

Homograft coverage, although not permanent, will give a good physiological dressing for several weeks and will often get the patient over a difficult period in his recovery.

THE PROBLEM OF INFECTION

The main cause of death in burns today is infection. This usually takes the form of Septicemia with peripheral vascular collapse. Pneumonia and septic thrombo-phlebitis, with ensuing pyogenic abscesses are the other common forms of infection. Renal infection may be a problem when a catheter is in place for some time. The organisms usually present are staph pyogenes, streptococcus hemolyticus, bacillus pyocyaneous, proteus vulgaris and B coli Tetanus may rarely occur.

Infection is a problem from the day of the burn until the burned areas are grafted completely. It can be present locally as a topical infection or may be masked under the eschar. When the wound has granulated and the slough

has been removed, the granulation then gives some protection.

The main approach to this problem is to suspect infection and be ready to treat it early. Blood cultures will help to pick up a Septicemia and cultures and sensitivities can be ready in twelve to eighteen hours. The clinical picture of a high temperature, rising pulse, and mental disorientation should alert one to the dangers of Septicemia.

The problem of local infection can be lessened by the use of the broad spectrum antibiotic sprays. If infection does occur, the application of moist saline dressings to the infected area will prevent pus from pooling in these

areas.

Cutdown areas should be looked after carefully. The operation should

be done as a sterile surgical procedure with all the normal precautions.

Frequent physical examinations will help to pick up evidence of pneumonia or thrombo-phlebitis. Chest infections can be decreased by the frequent turning of the patient.

NUTRITION

The burned patient is in a phase of catabolism until the burned area is completely healed. Initially he should be fed completely intravenously until the return of bowel function. The caloric intake by this method is small and

inadequate. The patient should be started on fluids of high caloric value. These should be rich in carbohydrates at first and then protein and fat added as the patient can tolerate them. Severely burned patients require five to six thousand calories per day and even this amount will not offset the tremendous tissue destruction. Food should be available at all times and the patient's, whims should be catered to. Added vitamins are essential from the beginning I usually give Vitamin C in dosage of 1000 mg. daily and some form of Vitamin B. Complex.

TRACHEOSTOMY

This is a procedure which is rarely necessary but which may be life saving. It may be necessary in burns which are associated with an explosion, with damage to the respiratory passages. It may also be necessary in patients unable to clear the respiratory passages properly.

SKIN GRAFTING

Skin can best be taken with the Brown electric dermatome. The grafts should be taken ten to twelve one thousandths of an inch thickness so that the same donor sites can be used repeatedly. The donor sites will heal quickly and without infection if a dressing of 5% Scarlet Red impregnated in flannel is used. It is superior to any of the greasy dressings in my experience. In In severe burns, stamp grafting may be necessary but where possible sheet grafting is preferable, because of the better cosmetic appearance.

Alternating auto and homograft strip grafting is an excellent method of closure when skin is in short supply. The exposure of the skin graft without dressings except a tulle gras is my preference in most of these burns, particularly those which are grafted on granulation. The percentage of take is higher when this method is used, because any infection which does occur can readily be seen.

TETANUS

All burned patients should be immunized against tetanus. This is done by the injection of 3000 units of tetanus antitoxin and 1 c.c. of tetanus toxoid in different sites. The tetanus toxoid will have to be repeated at monthly intervals for two further doses. The antitoxin should not be given if the patient has been previously immunized within the past two years.



JOHN STEWART MEMORIAL LECTURE*

Wednesday, 8th November 1961

DR. CHARLES L. GASS
Tatamagouche, N. S.

I greatly appreciate the honor done me in being asked to deliver the John Stewart Memorial lecture this year. And I am very conscious of the fact that this great honor comes not of my own deserving, but rather it is an expression of your appreciation of the importance of the general practitioner in the medical scheme of things entire. The education and training of doctors, to be first class general practitioners, has been the primary aim of the Medical Faculty of this University and your graduates are equally qualified for general practice and for further training in one of the narrower fields of the many specialties. Your annual refresher course and the short courses throughout the year are second to none in America. This is no glib overstatement made for the sake of courtesy, but is supported by a survey made some three years ago by the College of General Practice of Canada. These courses have been a great boon to the general practitioner in the Maritimes. I am one of the diminishing few, who attended that first two weeks Refresher Course, thirty-five years ago and perhaps I might take this opportunity to express, to the Faculty, our thanks for their very considerable efforts through the years.

The purpose of this Memorial lecture, of course, is to perpetuate the memory of the life and work of the late Dr. John Stewart, who has been aptly referred to as the "Beau Ideal of Medicine." The choice of subject is left to the lecturer and I was told that the audience would be predominantly medical profession, both practitioners and teachers, and affiliated Health Groups, Medical students, Nurses and Medical Technicians, together with any lay people who might be interested. So in trying to find a subject, suitable to the occasion and the audience, I posed these questions: "Has John Stewart any meaning for us today? Why a Memorial lecture?" He has been dead for 28 years and, measured in terms of change, that is the longest 28 years in Man's history, a period of tremendous changes in Science and Invention, in Medicine, in Society and Education, also in tastes, fashion, outlook and attitudes. Has

the image of John Stewart become out of date, obsolete, passé?

And so our subject tonight is "John Stewart and the Spirit of Medicine." The life story of Stewart is well known to most of us but, for the sake of the younger listeners, a few facts should be stated. He was born in 1848, in a small country district of Cape Breton, the eldest of ten children born to the Rev. Murdock Stewart, who had come out from Scotland to Nova Scotia as a Presbyterian missionary and was settled in Cape Breton. The father had bought a farm and had built a frame house before his marriage, and here the large family was raised, the products of the farm no doubt supplementing his small stipend. John received his early education mostly from his father, who was a Master of Arts from Aberdeen University, with honors in classics and had taught both at the University and for five years at a Boy's School. At the age of 14, John was sent to the Model School in Truro, and came under the teaching and influence of the Rev. Dr. Forrester, a noted clergyman and teacher of Natural Science. This was followed by two years of teaching school. He then went to Scotland and for three years worked at farming with relatives, then enrolled at Edinburgh University for a year. By this time he had decided

^{*}Originated and sponsored by the Provincial Medical Board of Nova Scotia.

that he wanted to be a Doctor of Medicine and, the attraction for him of his family and homeland being great, he returned to Nova Scotia and took his first two years in Medicine at Dalhousie, then returned to Edinburgh to complete his course. Here his excellence as a student, his industry, and his striking personality brought him to the attention of the Great Lister. Stewart became successively Lister's dresser, clerk, house surgeon and assistant. The story of Lister's choosing Stewart to be one of four assistants to accompany him to London in 1877 is well known. The influence of that great man on young John Stewart was profound. Their association was close and their friendship became intimate and lasted throughout life. Furthermore, the keen progressive surgeons of the world visited Lister's Clinic, both in Edinburgh and London, so that Stewart formed friendships with many who became leaders of surgery in every country. In spite of the prospects of a brilliant future in London and the encouragement of Lister to remain with him, Stewart returned to Nova Scotia; for he had purposed from the first to practise among his own people in his native land. In 1879 he settled in Pictou, a small town with no hospital, with little industry but a seaport with a large surrounding farming population. So the best trained young surgeon in Canada, became a country general practitioner and continued in that role for 15 years. His humility and modesty and absence of self-seeking, which was evident to those of us who knew him in his later years, was evident also in his youth.

The great advance in knowledge from scientific research in the latter part of the 19th Century had a tremendous impact on Medicine. Lister was not just the lucky discoverer of the germ-killing property of carbolic acid he was a scientist, who by patient and long research, applying Pasteur's discoveries to surgery, worked out a surgical technique which, when used with meticulous care, solved the problem of surgical sepsis. The results were miraculous at that time, exceeding even the miracles of antibiotics in our time. Also Lister s researches had added to our knowledge of pathology and physiology, and he had given, assisted by Stewart, the first lecture on bacteriology ever heard in London. John Stewart represented this new knowledge in N. S. The doctors of this Province, true to the spirit of their art, wanted it for their patients, so, more and more. Stewart was called in consultation throughout the whole province. until in 1894 he moved to Halifax, to practice as a consultant and operating surgeon. His practice became province wide, and his influence on Nova Scotia Medicine in that important period of enlightment and changing concepts was profound. That influence spread beyond our provincial borders, for he took an active interest in organized Medicine and served terms as President of the Canadian Medical Association, President of our Provincial Society, and Chairman of the Medical Council of Canada. He later became Professor of Surgery and Dean of Medicine in this University and Universities in Canada and abroad honored him with their doctorate. Although far past military age, he had a distinguished career in World War I and was decorated by the King with C.B.E. He died in Halifax in 1933, full of years and honor.

He had dedicated his life to the benefit of the people in this land as his father had done before him, not to the achievement of fame and fortune. "Bring people up in the company of the first rate and they will instinctively know what is inferior, wrote Sir Richard Livingstone of Oxford. Certainly the growing personality of young John Stewart had been exposed to the first rate, in a Christian home where early on the farm he learned to work and to accept responsibility as the eldest of 10 children, in his early education under

his father, a first class teacher and scholar; and in his Medical education under the immortal Lister. He instinctively knew and shunned the inferior.

His influence did not come alone from his knowledge and skill as a surgeon but also from his humanity. His manner had dignity, yet humility and kindliness marked his behavior and his goodness to the distressed in body, mind and estate was proverbial. To his confreres, he was loyal and helpful and in the petty quarrels, within the Family of Medicine, he remained above the strife and such was the power of his personality, that it was said that when John Stewart entered a Medical meeting, the whole tone and mood of the discussion was elevated to a higher plane.

"His life was gentle and the elements so mixed in him that Nature might

stand up and say to all the world: This was a Man."

John Stewart brought to Nova Scotia two things, one new, one very old, together representing change and permanence in Medicine. The new was a surgical technique, a new knowledge in Medicine, gained by scientific research. The old was already here, and was revitalized by Stewart's character and example. It is the Spirit of Medicine, in human experience, a thing beyond knowledge. The new technique, a great step forward in a rapidly changing science, was itself changed by later knowledge, but the spirit which gave Medicine its origin and makes it a profession instead of a trade or business, remains.

Science has done great things for us, but Science—the knowledge of nature and control of its forces—without the spirit of Humanitarianism has brought us to the brink of disaster and that word disaster, should remind us that "the fault lies not in our stars, but in ourselves." Medicine is a great glowing example of Man's efforts to combine knowledge with a humanitarian spirit for Man's welfare. Man has always sought for cure and relief of suffering and as Sir Henry Cohen reminds us in his Presidential address to the Royal Society of Medicine in 1955, "his purpose was not wholly selfish; that sympathy for his fellows is revealed in human history as one of the dominant human instincts." And Osler wrote in the Evolution of Modern Medicine: "Medicine arose out of the primal sympathy of man with man; out of the desire to help those in sorrow, need and sickness." In the record of man's doings, even in his primitive state, we find evidence of his attempts to heal the hurt of his fellowmen and these efforts have always been held in high esteem, although in later Christian times, some misguided thinkers objected to the alleviation of pain as being against the will of their particular god. Dr. James B. Connant, ex-president of Harvard, and a noted scientist, in his lectures on "Modern Science and Modern Man" places the reason for that esteem in the realm of spiritual values, a realm which cannot be accounted for by any conceptual scheme of science, but is a fact of history. Out of that realm, came the art of healing. First in the hands of priests and philosophers, groping in the misty fields of religion and speculation for cause and cure, then later lifted into the clear air of early Greek Science, compounded of empiricism, observation with honest records and common sense. Here we date the beginning of Modern Medicine; here the spirit of Medicine found its finest expression, where in Hippocratic writings, it is written, "Where there is love of humanity, there will be love of the healing art", and later in the Hippocratic code, which makes the patient's welfare the Physician's first care, Medicine found its credo and its ideals.

From these beginnings, the art of healing evolved through the years, sometimes going forward, sometimes slipping backward into magic or vain speculations, grew in the contemporary intellectual soil and conceptual climate. Sometimes the art was wedded to a faulty science, producing a horrible off-spring of faulty practise, in whose chromosomes, the gene of science was absent or recessive; sometimes that early science caught glimpses of truth as we conceive it in our present knowledge. Sometimes the little candle of activating spirit threw its beams afar, "showing a good deed in a naughty world", and sometimes its light was very dim, but never went out. Even in the darkest days of ignorance, the spirit lived. Kipling paints a true word picture in his "Our Fathers of Old."

Wonderful little, when all is said,
Wonderful little our fathers knew.
Half their remedies cured you dead—
Most of their teaching was quite untrue—
"Look at the stars when a patient is ill,
(Dirt has nothing to do with disease,)
Bleed and blister as much as you will
Blister and bleed him as oft as you please."
Whence enormous and manifold
Errors were made by our fathers of old.

Yet when the sickness was sore in the land, And neither the planet nor herb assuaged, They took their lives in their lancet-hand And, oh, what a wonderful war they waged. Yes, when the crosses were chalked on the door—Yes, when the terrible dead-cart rolled, Excellent courage our fathers bore—Excellent heart had our fathers of old. None too learned, but nobly bold Into the fight went our fathers of old.

But "the thoughts of man have not always been widened with the process of the suns". For a thousand years, the mode of thinking men in the Golden Age of Greece, was forgotten, although much of their writings was preserved in the institutions of the Christian Church.

As a rule, states Sigerist, physicians were clerics in the Middle Ages and although little was added to Medical knowledge and concepts, for the Humoral pathology of Hippocrates and the authority of Galen, persisted until the 18th century, yet with the spread of Christianity, the position of the sick man in society changed and in theory, at least, Christian charity, which included Medical aid, was extended to all, rich and poor, saint and sinner, master and slave, alike. This was an advance from an earlier time. With the revival of learning, the outlook of science returned, the doctor of Medicine began to be a man of science, Medicine became a profession and its mode of application of science continued to be its art.

The advance of science during the past 300 years, in which doctors played an important part, its rapid advance during the past 100 years, particularly the past 50 years, need only to be mentioned. In John Stewart's youth, the whole world of Medical Science was exploding with new knowledge and new concepts, popping up everywhere; our cellular pathology, bacteriology with its resulting immunology and antisepsis, anesthesia and the revolution in Nursing, associated with the name of Florence Nightingale, which made possible the

modern hospital, all these appeared within a period of 20 years. No wonder Osler spoke of a "new heaven in Medicine and a new earth in Surgery".

No less wonderful are the advances seen in the lifetime of many of us here. The great advances in physiology and pathology, in chemistry with the chemist and pharmacologist juggling the atoms of complex molecules, the physiological chemist delving more deeply becoming the bio-chemist. And giving us new concepts such as deficiencies amenable to replacement therapy as in endocrinology and dietetics; the work of the physicists giving us X-ray and radioactive substances, add to these and many more, the miracles wrought by the antibiotics of the biologist and chemist; the advent of the psychiatrist and modern techniques of surgery. Finally we must not forget the careful patient clinical observation so often pointing the way to research. Perhaps the younger generation of doctors and students take all this for granted, but we elders experience the wonder of Keat's "watcher of the skies, when a new planet swings into his ken". Certainly science has greatly narrowed the field of empriricism and has removed from Medicine much guess work, but it would be too bad if in our rapid development, we lost the sense of wonder which makes us human.

There has always been something mysterious about disease and death and the mystery of man's suffering has perplexed him since long before the time of Job. The voice in the whirlwind answered Job's questioning that the mystery of his suffering must remain a mystery and Job bowed before the inexplicable universe in awe and wonder. Modern man has never accepted the answer. Advancing science has done much to remove the mystery, but much remains. To the scientist, disease is just a biological process-abnormal reaction to abnormal stimuli—but disease in man is more than that. For besides his anatomical structure with its physiological processes, he has a mind, a body of mental processes, some very old, some newer. In the presence of disease and pain and the possibility of dissolution, ancient imaginings come up from the deep, to trouble our not so ancient reasonings. Nothing strips man of the tinsel trappings of body, mind and estate like disease and suffering and death levels us all, rich and poor, learned and ignorant alike. A man may be dressed in purple and fine linen and fare sumptuously every day, and be adorned with all sorts of intellectual finery but let him get a plug in his coronary artery, he finds himself in a hospital bed with a cotton shirt buttoned up the Helpless and dependent and wanting comfort, he slips back towards childhood mentally and physically; the mystery returns and he is just a little bit afraid of the dark. Disease is not only a scientific problem, disease is a human problem. In the work of the doctor of Medicine, these two problems are merged and his new science must be blended with the old spirit of his art as he applies it in his work of healing.

As we look back at even our immediate predecessors we are inclined to marvel at how little they really knew and how pitifully meagre was their armament compared with ours. Yet their knowledge and concepts were the truth of their time and in their application of that knowledge they showed a spirit, which in this scientific age, we are in danger of losing. Twenty-five years ago, Sir Walter Landon-Brown pointed to this danger, stressing the fact that neither art nor science alone, was sufficient in the mission of Medicine.

Perhaps our growth in science, giving us pride in our so-called realism with our modern depreciation of sentiment, accounts for some of our loss of public esteem, which today disturbs us. One of the big modern lies, which we tell ourselves, is that our emotions are unworthy and not to be trusted, senti-

ment is hardly respectable and reverence is old fashioned. Surely "We are afflicted by what we can prove, we are distracted by what we know" and we are losing our sense of values. It is part of the general outlook of our modern society and we in Medicine, as always, are a part of it. Certainly we are getting a bad press at times. "Who do the Doctors think they are?" screams a recent headline in a paper of high standing. And in the new English translation of the New Testament, intended to give the text a modern meaning, "Luke, the beloved physician", becomes simply, "Luke, the doctor,"—surely a loss of something more then euphony. Our immediate predecessors in Medicine, knew less than we do and could do much less to prevent and cure, yet the Doctor of Medicine never stood higher in public esteem than he did at that time. Do you remember that old picture? The picture by Sir Luke Fildes, so popular 50 years ago, of the bearded kindly doctor, sitting beside the sick bed of a child, in a poor cottage home, is rarely if ever seen today. It is replaced by the television picture of the modern doctor clad in white, with a stethescope sticking out of his pocket, peering down a microscope, or playing with bottles and flasks and retorts and Bunsen burners, in a gleaming white laboratory. Neither picture alone represents the Doctor today. Never before has the public had more faith in our knowledge and ability to heal; never before has there been such a demand for our services, yet people suspect our motives. We are giving much consideration to public relations. rightly told over and over again, that this must start with the individual doctor. In writing about science and government, C. P. Snow, used a phrase "euphoria of gadgetry." This could almost be applied to Medicine today, but no gadget will help us in improving public relations. We cannot demand respect and affection. Nor can we buy it with the spurious coin of pretense. We must earn it. Science alone may even hinder us here but blended with the ancient spirit of Medicine as exemplified by John Stewart, it will save us.

We practitioners, busily engaged in the arduous task of dispensing the great gifts of Medicine might well pause to remember the natural modesty of John Stewart, which added to his true dignity. Quite rightly we take pride in our work and are jealous of our status but we are not the whole show in modern Medicine. We tend to forget the great army of workers in the field of which we are now only a part. We view with pride, the great record seen in our vital statistics. Certainly we practitioners have played our part but in concentrating our efforts on the diagnosis and treatment of the individual episode of illness as we must do, that part is not predominant though the intimacy of the doctor-patient relationship makes it unique. We and the general public, often forget the tremendous results of workers in the field of Public Health and Preventive Medicine. What would be our record of vital statistics without the work of these? We tend to forget also, how much we depend upon the Nursing Profession, the technicians, the laboratory workers, therapists and pharmacists. And what shall we say of the thousands of scientists patiently working in basic and Medical research. These are the unsung heroes of modern Medicine. We know and meagerly honor the names of a few who have put into our hands the power to perform miracles; Pasteur, Lister, Minot and Murphy, Banting and Fleming. How many of us remember the name of that German pharmacologist, who 25 years ago, gave us prontisil, which with the help of chemists, was followed by the Sulphonamides. (Domagk.) and I had to look it up and have we older doctors forgotten the miracles of that day? "And many there be, which have no Memorial, who had perished as though they had never been". We practitioners, so often are like little Jack Horner, sitting in his corner, eating his Christmas pie; "he put in his

thumb and pulled out a plum and said what a good boy am I," but who put

the plums in the Christmas pie?

In considering the broad field of modern Medicine, we should remember also the important role of our Medical Schools and our teachers, who carry out the Hipprocratic admonition to teach the Art. I refrain from a further discussion of this subject, except to add that we also are enjoined to "share our substance with our teachers and relieve their necessities." In the modern setting this means that if we remember the generosity and loyalty of John Stewart, we should out of our substance, help to relieve the necessities of our Medical School. This is a matter which our Medical Alumni Society might well consider.

Finally we should not forget the broad forward sweep of social progress; that we are not an isolated segment of society, but are a part of it. The spiritual quality, the genesis of our Art, this urge to relieve suffering is, as Lord Cohen states, "a dominant human instinct." It is not the exclusive possession of our profession, but a widespread force in our society, increasing in intensity during the past 150 years. Many of the leaders in the Public Health movement of the 18th and 19th Centuries were laymen, working with great Physicians, who possessed a broad social outlook. The rapidly awakening social consciousness resulted in government action and Public Health became of necessity a branch of governmental administration. We, in our time, have seen an example of this social force in the many lay voluntary bodies which are doing so much to promote Health. One needs only mention the Red Cross and its blood collecting work and the Canadian Tuberculosis Association, working with our confreres, who are government employees, in the field of Tuberculosis. the outstanding record of whose work is seen in our vital statistics. er outlook of Medicine, as a part of contemporary society and not a thing apart, has sometimes been lacking with us and calling for our re-orientation in society. One sometimes hears thoughtless remarks, disparaging the Civil Servants and salaried workers, forgetting that many of our most valuable confreres are in that class; forgetting that so much of the advance in Modern Medicine was accomplished by salaried people. Such thoughtless remarks, almost arrogant, do not represent the attitudes of most of us and they give the false impression that we are interested mainly in money. We are happy that Canadian Medicine is showing its social orientation in our encouragement of widespread insurance and our request to the Government for a thorough study of the Medical needs of our people and the existing services. The present system, whereby large segments of our Society in business and industry receive Health insurance at the expense of the consumer public, excluding others, is unrealistic and unfair. In devising a better all inclusive system to meet the need of our changing society, our advice and help must be outstanding and in that advice, the spirit of our ancient Credo must be pre-eminent.

We are not so naive as to pretend that changing Society's values, where money is becoming the measure of accomplishment, has not touched our profession. Nor do we pretend that money does not matter. But we do well to occasionally remind ourselves that our first consideration is the welfare of the sick and suffering people, who commit their lives and fortunes to our care.

And every doctor must sometimes do something for nothing.

Our mission is to apply our increasing knowledge to the prevention and cure of disease in a changing society. In this our outlook and practice, are changing. The outstanding change in outlook in the past 50 years, is the return to an earlier concept of "the whole patient," of his three inseparable, in-

tegral components, structure, function and mind, and Medical Psychology has taken an important place in the person of the Psychiatrist. We see the great growth of Specialism which today is necessary. The growth at present seems disproportionate, though not so much so as it seems, and there is fear sometimes expressed that the bright day of the general practitioner and family doctor may be done. If this should come to pass, then truly, "we are for the dark;" Medicine and society would lose greatly, for the Family Doctor is, and I believe, will remain the key figure in Modern Medicine. The tensions existing in some quarters, between the General practitioner and Specialist are compounded of selfishness, arrogance and a feeling of inferority. We should get rid of them. We need to step back from the canvas and see the picture in its true perspective. We are getting rid of them. The appropriate specialist is the necessary and valuable helper of the General Practitioner in many of his cases. We should realize that the general practitioner is himself a specialist and the duty of his patients devolves upon him, and other specialists, to keep up to date by all means, which are becoming more and more available. In the promotion of post graduate training, the Royal College of Physicians and Surgeons and the College of General Practice in Canada are complementary and together represent a great advance in Canadian Medicine. They represent that urge to excell, which we find in Medicine, perhaps to a greater degree than in any other profession. The law demands in us, proficiency; but the good Doctor strives for excellence and that effort is voluntary. We need a further voluntary effort in the area of co-operation. In this, the Department of Gynecology and Obstetrics of this University is setting a fine example. I should like to see in every town, a well trained specialist in each of the broad fields of Internal Medicine, General Surgery and Psychiatry and Ophthalmology, not as competitors, but as helpers for the General Practitioner and accepted as such. Also in the larger departmentalized Hospitals, a few able general practitioners of broad outlook, on the staff of each department, might provide a needed balance for the necessarily narrower view of the Specialist. Today the call is not only for greater excellence in knowledge, but also for greater co-operation within our ranks, for a greater appreciation of the worth and problems of one another.

Someone has said that we doctors in our work are motivated by a mixture of three components, namely; our idealism, money and the satisfaction of doing a good job. This I believe to be true, but they must be kept in proper balance.

To deal first with money; certainly we need money and we rightly expect to be paid, but not for everything we do. Our Dominion Bureau of Statistics indicates that we are very well paid but, if the making of money is our main motive, we are out of place in the Medical Profession.

Secondly, the satisfaction of doing a good job is a worthy motive in any field of endeavor. It is the motive which brings us to these Courses, to gain excellence in our knowledge, but in Medicine, knowledge of science without the ideals of art is not enough.

Thirdly: Idealism alone without knowledge is not enough. "Out of sympathy came modern Medicine", said Osler Sympathy means feeling the same as the sufferer, suffering with the sufferer. It is the glory of our profession that we combine knowledge with sympathy to do something about the suffering; and in that work, neither money nor self-esteem, but the welfare of the sufferer takes first place. That is the Spirit of Medicine, the source of our idealism.

It may be thought that I am just attempting to revive a vestigal mythology in trying to stress the concept of Spiritual values in Medicine, wherein reside our beliefs and ideals. Earlier I mentioned, our pride in our reason and distrust of emotions. There is no doubt that our rapidly advancing science has brought with it an age of materialistic thinking. We are becoming worshippers of intellect, of reason, of the things we can know and prove and measure. We are becoming distrustful and a bit ashamed of our feelings, or what we disdainfully label imagination, forgetting the fact that so many of our experiences of reality, which go to make up our human living, come through some mental faculty other than intellect. Gilbert Highet, whose little essays reflect so much wisdom as well as learning, discusses in one of these, "Experience Beyond Knowledge," citing the power of music and art, whose meanings are not grasped by rational thought. "A good poem," he says, "a fine play, the movements of a dancer, cannot be explained." And he quotes a delightful verse:

"Reason has moons but moons not hers
Lie mirrored on the sea
Confounding her astronomers
But oh! delighting me."

Of course, sentiment must be disciplined and directed or it becomes vain sentimentality, but reason alone would leave us less than human. This is particularly true in Medicine. We humans live in two worlds, a world of things which can be known and controlled by reason, and a world of feeling, unknown by reason, and our diet should be a balanced one of the fruits of each.

I am conscious of the fact that I have told you nothing new but have only reminded you of what you already know and which, in the rush and pressures

of our modern world, we may forget.

And so this evening, in the midst of gaining new knowledge, we pause to remind ourselves of the spirit of our calling, which is above knowledge, not known by reason, but felt as truth." a sense sublime

Because John Stewart displayed in his life and work, these qualities of intellect and spirit to a remarkable degree, we honor his memory and recognize that those qualities are as relevant in Medicine today, as we meet the problems of change, as they were throughout the long years of our history.

In closing, let me quote the final verse of Kipling's poem which I previously

quoted:

If it be certain, as Galen says,
And sage Hippocrates holds as much—
'That those afflicted by doubts and dismays
Are mightily helped by a dead man's touch,'
Then, be good to us, stars above!
Then, be good to us, herbs below!
We are afflicted by what we can prove;
We are distracted by what we know—
So - ah so!

Down from your heaven or up from your mould, Send us the hearts of our fathers of old! To the Editor:

With reference to article 8 of your 1000 Word Series on thyroid tumors in the April 1962 issue of The Bulletin I would like to pay tribute to Dr. Arthur L. Murphy's large experience in this field but cannot subscribe to his recommendation that all non-toxic thyroid enlargements appearing after the age of thirty be referred for surgical exposure of the gland. Views on the management of these patients with which many internists would agree have been expressed recently by Dr. Robert H. Williams (Textbook of Endocrinology, W. B. Saunders Co., Philadelphia, third ed. 1962).

Papillary thyroid carcinoma (usually microscopic only) has been reported to occur in 3 per cent of the general population, a situation not unlike the finding of microscopic prostatic carcinoma in 25 per cent of men over 50 years of age. The death rate from thyroid cancer, on the other hand, has been given as one per 200,000 population per year. This discrepancy obviously raises

doubts as to the relevance of microscopic papillary carcinoma.

Another survey gives the incidence of carcinoma in *unselected* non-toxic nodular goiter as 0.2 per cent (or estimated development during lifetime in non-toxic nodular goiter as 1 per cent). It is clear that pathologists must differ considerably as to the criteria required for the diagnosis of thyroid cancer.

As Dr. Murphy points out, a dogmatic position on management of non-toxic goiter is hazardous while so much confusion about the subject prevails. At the moment I seriously consider early surgery if there is evidence of regional or distant metastases, an area of hardness in the thyroid, adherence to surrounding tissue, hoarseness, dysphagia, dyspnea, a very large goiter or evidence of rapid enlargement (unless tenderness, fever, etc. suggest sub-acute thyroiditis). The need for massive radio-active iodine therapy is considered post-operatively but actually given only occasionally. L-thyroxin (or desicated thyroid) is then prescribed with gradual increase of the dose to tolerance and this therapy is continued indefinitely.

For the larger group of non-toxic goiters where the above noted features are lacking, I would recommend a six month trial on L-thyroxin given to tolerance (0.3 mg. daily is an average dose) providing the patient seems reliable and willing to be rechecked every few months and later at longer intervals. Failure of the gland or nodule to become smaller at the end of six months would provide an indication for surgical consultation. Astwood, Cassidy and Aurback (quoted by Williams) reported that thyroid hormone reduced the size of 67 per cent of diffuse goiters, 76 per cent of multi-nodular goiters and 54 per cent of single thyroid nodules providing these enlargements were not accompanied by hyperthyroidism. Regardless of whether or not thyroid surgery is undertaken L-thyroxin therapy should be continued indefinitely if the incidence of late occurring toxic nodular goiter and thyroid cancer are to be reduced to a minimum.

Where the function of the non-toxic single nodule can be evaluated with tracer doses of radio-active iodine (scintiscanning) I recommend surgery for those which lack function—apart from nodules which are not currently enlarging in elderly people. Functioning nodules are treated with L-thyroxin unless sufficient hormone is being produced to suppress the function of the remainder of the gland. This latter group can be given radio-active iodine therapy if older than 34 years (the age limit I currently use when recommending radio-iodine for previously untreated hyperthyroidism).

PERSONAL INTEREST NOTES

HALIFAX MEDICAL SOCIETY

April 25, 1962—The Annual Business Meeting was held at the Dalhousie Public Health Clinic. Committee reports were presented by Dr. C. H. Young on Maritime Medical Care, in which he stated some 20% of the population of Nova Scotia are presently enrolled under the plan (in comparison with 45% of the population in Alberta and 53% of the population in British Columbia in corresponding doctor sponsored prepayment plans). It was considered that approximately 14% of the population of Nova Scotia would be unable to afford the present Maritime Medical Care rates. It was also pointed out that calls per 100,000 population varied between 2100 to 2300 in other plans as compared with 3900 in the Maritime Medical Care plan. The Secretary, Dr. J. A. Myrden, reported on membership (231 total, 9 honorary, 1 death, 1 resignation and 14 new members), and the Treasurer, Dr. A. J. Brady reported on the state of finances. Dr. H. R. Phillips, Chairman of the nominating committee brought in a new slate of officers: President Dr. K. M. Grant, Vice-President Dr. J. McD. Corston, Secretary Dr. G. J. H. Colwell, Treasurer Dr. A. J. Brady. In addition the Executive is to include Doctors C. A. Gordon, W. F. Verge, H. I. MacGregor, B. S. Morton, I. D. Maxwell, J. K. B. Purves, and H. R. Phillips. The representatives to the Medical Society of Nova Scotia Executive will be: Doctors F. J. Barton, K. M. Grant, and J. McD. Corston.

Dr. R. O. Jones, discussed the establishment of a new Psychiatric Out-Patient Clinic at the Nova Scotia Hospital, with some comments regarding their method of charging fees.

May 2, 1962—The annual dinner was held at the Lord Nelson Hotel,

preceded by the President's reception.

Dr. and Mrs. E. H. Evans, Rockingham, and their son Jim, left on April 21, 1962 for Vancouver where they will take up residence. Dr. Evans has accepted a post with the Department of Veterans' Affairs. Dr. Evans was editor of the Nova Scotia Medical Bulletin for almost a full year, and his sincere efforts to improve the quality of the Bulletin will be missed.

Dr. F. A. Dunsworth, Halifax, was injured in an automobile accident on April 20, 1962. He fractured his left humerus and was severely bruised

generally.

Dr. Ronald A. Perry, announces the opening of an office for general practice at Rockingham (formerly the office of Dr. E. H. Evans), phone 455-3121.

Dr. Arthur L. Murphy, Halifax, has had a play accepted by the American Broadcasting Co. for its Ben Casey series. Dr. Murphy won the Halifax Herald Trophy for the best dramatic writing in the province for 1959, for another play "You'll Be Calling Me Michael", which was televised over the C.B.C. network.

UNIVERSITY

April 18, 1962—The Pharmaceutical House of Smith, Kline and French has awarded a grant of \$5,000 to the Psychiatry Department for research in evaluation of therapy in the outpatient department, to be directed by Doctors S. Hirsch and Aubrey Shane of Dalhousie University.

May 11, 1962—Dr. F. A. Dunsworth, President-elect of the Canadian Psychiatric Association participated in the presentation of that organiza-

tion's brief to the Royal Commission on Health Services in Toronto.

During this same week Dr. C. A. Boddie and Miss Joan Cummings presented a paper on new group methods for the treatment of parents and children at the American Psychiatric Association meetings in Toronto. These meetings were attended by Doctors H. K. Hall, Doris Hirsch, Sol Hirsch, R. O. Jones, A. W. Tacreiter, and Alan Frecker. Dr. R. O. Jones, also presented a paper to the American Association of Hospital Chaplains on "The chaplain's perception of mental illness".

BIRTHS

To Dr. and Mrs. D. MacD. Archibald (nee Ruth Ann Morse), a son, at Soldier's Memorial Hospital, Middleton, on April 16, 1962.

To Dr. and Mrs. Wilmot F Fraser (nee Norma Lehey), a son, at the

Montreal General Hospital on April 19, 1962

To Dr. and Mrs. M. G. Worthylake, a son, at the Blanchard-Fraser Memorial Hospital, Kentville, on April 26, 1962.

MARRIAGES

Dr. Ian Omar Drysdale, Halifax, to Miss Janet Annabelle Owen, R.N. of Charlottetown. Dr. Drysdale begins post-graduate training in Ophthalmology in Toronto on July 1, 1962.

COMING MEETINGS

Specially Arranged Post-Graduate Courses—The director of the post-graduate division, Faculty of Medicine, Dalhousie, advises "the post-graduate division is particularly anxious that all practitioners take short periods of full time post-graduate training, or year long periods of once weekly training by special arrangement with various departmental heads at the University. The director of the division is prepared to assist in making these arrangements not only at Dalhousie, but also is prepared to obtain information regarding opportunities in other post-graduate training centres, on behalf of interested practitioners within the Atlantic Provinces".

Sept. 18-21, 1962—Fifth Canadian Conference on Mental Retardation, Nova Scotia Hotel, Halifax. This conference, sponsored by the Canadian Association for Retarded Children, will have as its theme: "The Community—A Necessary Member of the Team". Slogan: "Help Them to Help Themselves". For further information: Mrs. L. J. Stewart, C.A.R.C., National Conference Chairman, 610 Kenaston Ave., Town of Mount Royal,

Quebec.

June 10-14, 1963—96th Annual Meeting of the Canadian Medical Association, Toronto.

Sept. 23-26, 1963—6th Canadian Conference on Mental Retardation, Marlborough Hotel, Winnipeg, Manitoba.

OBITUARY

Dr. George H. Wulff, 40, Armdale, was killed in a head-on automobile collision on the St. Margaret's Bay Road some 11 miles from Halifax, while returning from a visit to boatbuilders at Marriott's Cove. Dr. Wulff had practiced with Dr. C. H. Reardon, Halifax, since last November, and had been in Halifax approximately a year. Dr. Wulff, a native of Germany, had been in Canada for about 10 years, and had previously practiced in the Peace River District. He is survived by a 12 year old son, in school in Edmonton.

MEMORANDUM

REMOVAL OF STRONTIUM 90 FROM MILK

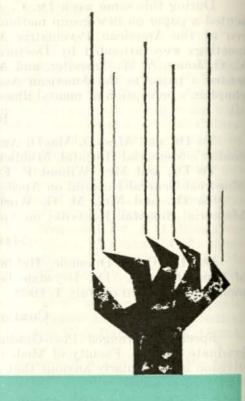
One of the problems undertaken by federal Department of Agriculture, under its terms of reference in an emergency situation, concerns the development of practical facilities for the removal of Strontium 90 from milk.

A process for removing Strontium 90 from milk was developed by Doctor B. B. Migicovsky of the Canada Department of Agriculture Research Branch. Doctor Migicovsky's process involves treating the milk with a cation exchange resin, specially treated with a solution of salts. This removes Strontium 90 and Cesium 137 without altering the normal mineral composition of the milk.

The American Department of Agriculture has used this process with slight variations. The technique used there is a complicated version of the water softening process: Citric acid is added to cold raw milk to ionize all the Strontium. The milk-acid mixture is then poured through tall columns containing an ion-exchange resin that essentially snatches the strontium ions out of milk as it flows by. The milk is then treated with potassium hydroxide (an alkali) to neutralize the acid, then pasteurized and homogenized. Water added with the acid and alkali is removed by flash heating the milk in a vacuum chamber.

Both the American and Canadian Departments of Agriculture are still testing these and other processes for the removal of Strontium 90 from milk, meats and cereal products.

January, 1962.



the relief of althing was gralifying and in some cases bordered on the dramatic

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