Health Rays

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HEALTH RAYS

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Hospital Visiting Hours

DAILY: 1100 -- 2030 (11:00 a.m. — 8:30 p.m.)

HISTORICAL SKETCH OF THE NOVA SCOTIA SANATORIUM [Reprinted]

by E.M. Murray

(Morning Chronicle, April 26, 1919)

It is too apt to be forgoten that a Government building or institution is the people's building or institution, and that the people should know all about it and take a pride in it. However, this is seldom the case, not because the Government doe not publish all details, for it does in the yearly Blue books, but because Blue books are read chiefly by those whose reports appear in them. This means that the mass of the people remain in ignorance of what is being accomplished, and how far along the high road of modern progress this Province of Nova Scotia is being pushed.

In the pretty little town of Kentville, there is an institution whose equal in size and equipment, and in value for its own special purpose, is not to be found anywhere else in Canada. This is something every Nova Scotian should know and take pride in, more particularly as this splendid institution is intended to arrest the spread of, and finallywipe out Nova Scotia's deadliest plague, tuberculosis. It is barely fifteen years since the Sanatorium at Kentville was opened. It consisted then of one building containing offices, superintendent's and nurses' quarters, infirmary and sleeping porches, dining-room, kitchen, and general parlor where the patients meet to sing or talk, the only sort of recreation provided. The building typified an awakening to the necessity for combating the ravages of this disease, and for that reason was extremely important.

His Ideals Realized

Five years after the first opening, the Government secured the services of Dr. A.F. Miller, whose training and experience under the great Dr. Trudeau specially fitted him for the task of conducting such an institution. It is not often given to any man in one short decade to see his highest ideals and most far-reaching dreams so nearly fulfilled, as has been Dr. Miller's experience. In 1911 he saw the first fruits of his work and aims, in the erection of two pavilions, each accommodating sixteen patients. That was regarded as a potable achievement. Today the plant consists of nineteen buildings, and the end is not yet. In less than two years these marvellous changes have been brought about, and all the great hill upon which the original building once stood alone, is now covered with handsome structures far exceeding in size and importance the building which once represented all that was being done to fight tuberculosis in Nova Scotia.

Changes like this one can only be wrought by the wise but free use of the modern Aladdins lamp - Money. And it has taken money to do this. The Federal Government, through the Department of Soldiers' Civil Re-establishment, has expended half a million dollars in equipping this plant with every known means for combating this terrible and more insidious disease. After full investigation, it was decided that the Federal authorities should co-operate with the Provincial, and using the Provincial Sanatorium as a nucleus, proceed to add such other facilities as proved necessary for the care of tuberculosis soldiers. There are now more than 200 soldiers being cared for at Kentville.

It has been the habit to regret that the war "caused" so much tuberculos-

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is, but that is merely a misstatement, or at least a mis-apprehension of the real condition. It is regarded as true by those who know, that the worst the war did was to reveal tuberculosis conditions already existing and thus to ensure proper treatment so that the sufferer shall be less of a menace to the community than he might otherwise have been. Looked at from this angle, the war has been a blessing, not merely to those who are "taking the cure" at Kentville, but to their families and friends also. Certain it is, that if one must undergo treatment for tubercular trouble, he could hardly expect to do it under more desirable conditions than are to be found at Kentville.

Patients Like Institution

This is pretty generally recognized by men themselves, although of course the enforced inaction, the routine and regulations are necessarily irksome at times to those accustomed to activity and adventure. A group of returned soldiers on a recent beautiful spring day, sat on the steps of one of the pavilions enjoying the sun. Before them stretched a panorama of hills and sky of fields and woods and the splendid group of buildings. If they sensed this beauty at all, it was probably only unconsciously. Yet they were not uncontent. A chance visitor stopped for a moment's chat, to get from the men if possible their real mental attitude. The view, the new buildings, the wonderful spring day were all touched upon, one man being chief spokesman for the group. The visitor asked if they felt themselves improving; if they liked the place, the food, the treatment. To all of which questions answers were promptly given, which spoke well both for patients and institution.

"I suppose", said the visitor, after some further talk, "that to you men whose lives have been filled with work and adventure, it gets a little monotonous here once in a while?" "God knows it does", was the emphatic response, followed by "but of course it's good to be getting well, just the same". And during all the inspection of the place, following diligent, quiet enquiry, the visitor found that that speaker voiced the general sentiment. There was no dissatisfaction anywhere, except that enforced idleness, the living by rule, because of physical disability, when often the spirit craved exciting activity, grew irksome and monotonous at times. But even this nervous disquiet was modified by the satisfaction of returning health.

It would be difficult to imagine how any worse state of mind could continue to exist in such surroundings. A man would have to be ungrateful, indeed, if his dissatisfaction went any deeper than a passing resentment against the monotony of convalescence. It is always the convalescent who finds ill-health hard to endure. The very sick are usually too ill to care. For them the wonderfully equipped Infirmary, one of the finest of the new buildings, provides the last word in comfort and good care. This building accommodates seventy-five patients with a separate room for each one, and porches for groups of three. Each room has its electric bell, so that the patient may summon physician or nurse at any hour of day or night, if necessary, and each porch is fitted with Adirondack reclicing chairs for those who are able to sit up. Each of the three floors in the Infirmary has its own diet kitchen from which the food is served to the patients. This ensures good, prompt service and hot food.

The Infirmary

Every patient admitted must spend a week in the Infirmary for observation, diagnosis and education. As soon as the condition permits they are graduated to the pavilions, on trial. If their condition becomes any less satisfactory, they are

again returned to the Infirmary. The medical section of the Infirmary contains two examining offices, a nose and throat room, a dental room, a laboratory, a dispensary, a sterilizing room, a medical board room, and a X-ray laboratory includes a Wrapper apparatus capable of producing 100,000 volts; a stereoscopic table, a fluoroscope for immediate examinations and an outfit for giving ultra-violet ray treatment. That the best is the cheapest in the end is verified by the economical nature of this equipment, the current for its use costing about two dollars per month. Dr. Collins is roentgenologist, and Mr. E.W. Hollingum, who did such good work at the U.M.C.A. temporary hospital at the time of the explosion, is technician.

After all, the foregoing is nothing but the bare bones of the Infirmary. The flesh that clothes them, making the equipment of any real value, is the human administration. Cheerful, efficient nurses, ever within call no matter what the hour, and physicians whose whole aim it is to ease suffering, to meet the individual need, and to effect a cure when a cure is even remotely possible. These are the things that really count. Add to them the comfortable beds and reclining chairs, the sunlight and air, the good food and wholesome recreation, and it is no wonder that so large a percentage improve and have the disease arrested.

From the Infirmary the patients graduate to the pavilions where they have no longer to keep their beds all day. There are five new, large pavilions for the use of returned men. The smaller pavilions are still used for what are called Provincial patients, the men and women who have not been part of the military establishment. It is from the occupants of the pavilions that the vocational classes are formed. As the world advances in knowledge it is gradually learning that health is merely the co-ordination of all the faculties of the human being. Occupation prevents too great pre-occupation with one's own physical conditions, and therefore has a healing effect.

The vocational classes include basketry, wood and leather work, and for those far advanced enough towards recovery there is a department of automobile mechanics. What was the laundry building in the early days of the institution, now completely outgrown, has been turned into a workshop where the automobile classes are held. A visit to the vocational building is a matter of unusual interest. Patients are engaged in making raffia and reed baskets in every conceivable shape, and for a great variety of uses. They have an opportunity to express their own individuality in their product, for the instructors are wise enough to guide rather than to dominate. The popular tea trays, with their handsome centres protected by glass, are also seen in every stage of progress up to completion. Wood-carving is in high favor, particularly with the men, and some of the original designs show an unexpected degree of artistic taste. Bead work, which requires such patience and concentration, and fine embroidery are being done by men as well as women. The boys who faced the savage Hun with courage and dash, are now abiding themselves towards renewed health by putting aside the tendency to dwell upon their own toubles, and fixing their attention upon these occupations. It is a big work done with a big purpose.

But all who are taking this training are not yet equal to the exertion of walking to the Vocational Building. The instructors go to such as these on the

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pavilion porches, so that the work he cannot go to, is brought to the patient in his reclining chair. The eagerness with which the work is followed is the best proof of its necessity and value. Some of the class rooms in the Vocational Building are used for instruction in all public school subjects, in bookkeeping, stenography, typewriting and telegraphy. If educational opportunities were limited or altogether lacking in early life, they may be taken advantage of here. Every man returning to normal life, may, if he will, be much better equipped to meet it than he was before he entered the San.

The Recreation Building

From the Vocational Building to the Recreation Building is but a step. It is only now that we have sufficiently broken away from old Puritan beliefs and prejudices, properly to value play. No animal develops well without play, and the human animal not only needs it in early life but flourishes best even in adult years when he has wholesome recreation. The splendid new Recreation Building is a joy to visit. The large auditorium will accommodate 450 persons and has a good stage. It is fully equipped for picture shows, as well as suited to concerts, lectures or religious services. This building is barely completed, but the Y.M.C.A. man is already on his job. And it is some job, for on the first floor of this building will be found that centre of all interests, the post office, canteen, a billiard and pool room, as well as a library and a barber shop, lounging and writing rooms. There is a piano down here for the men's use, as the fine instrument in the auditorium will be tuned to concert pitch and be kept for such occasions. Manager O'Connell of the Majestic is carefully considering a plan whereby he may add materially to the pleasure of these returned men.

Those who are suffering from one physical disability are sometimes likely to develop some other ailment, so that an Isolation Hospital was a necessity for such a growing plant. This building will accommodate, when completed, about twenty patients, will be equipped with all the necessary conveniences and have separate wards for different diseases. It will contain too, an examining room, a nurse's office and a diet kitchen.

Speaking of diet kitchens will inevitably bring to the visitor's mind the wonderful kitchen in the still more wonderful Service Building. In all probability the best hotel in Canada is scarcely so well equipped in the kitchen department as the new Service Building at the Kentville San. Here is to be found the last word in electrically run automatic machinery, which takes the drudgery out of housekeeping, and does as much work in 15 minutes as a large staff of human assistants could do in an hour and a half, and does it, too, more sanitarily. The keynote to everything here is cleanliness and light. The while uniform and cap of the Dietitian, Miss Dobson, as well as her smiling face might be taken as typical of the whole kitchen. There is despatch without nervous hurry, deft movements without waste energy, among the chefs and cooks and their assistants, and the atmosphere is as cheery and bright as the well-lighted room itself. Bread is the one thing they do not prepare in the service building, because it has been found that there is no economy in baking their own bread.

Sensible Economy

Economy in its true sense, savoring nothing of niggardliness, is one of the strong points in the management of the Service Building. It was this that suggested and maintains the wonderful staterooms and refrigerating plant in the basement. Even the basement is above ground, so that the chef's quarters may healthfully be located there. The refrigerating plant is of the ammonia variety, so that the temperature is always the same. In the old days of the small institution,

supplies were brought in proportionate quantities, but now they are bought in wholesale quantities at wholesale rates, and the saving is noteworthy. Sides of beef, carcasses of lamb and other meats; eggs and butter in large quantities, rows upon rows of canned vegetables are among things of which the visitor gets a glimpse as the big refrigerator doors are swung open.

Strict account is kept of everything received and nothing can be taken out of these storerooms except upon a written requisition from the Dietitian. In this way every article is accounted for. "Left-overs" go into the chef's pantry and from these are devised the toothsome "made dishes" which give piquancy and flavor to the regular meal.

To be in the big cafeteria when the noon meal is being served is an interesting experience. Each man as he comes in helps himself to tray, plate, cup and saucer, knives, forks and spoons which are all placed conveniently to his hand. He then passes along in front of the service table where the steam-heated pots or urns, and is quickly and deftly served with everything that makes up the meal, the glass of milk, which every patient is expected to drink, being the last thing placed on his tray. The entire staff of doctors, nurses and other officials are served with the same food served to the patients. The only ones who get extras are the bed-patients in the Infirmary. It is generally necessary to tempt their appetites with special dishes and these are devised and usually prepared by the dietitian herself. If food is a requisite for recovery from "T.B.", there is every reason to expect good results at Kentville.

An Effective System

The cafeteria form of service effects two good ends; it saves the expense, noise and delay incident to waiter service, and also teaches helpfulness and incites interest among the patients themselves. The little round tables seat four, a reasonably large and also reasonably small table-group. It allows of cheerful, stimulating intercourse, yet prevents too great and exciting hilarity. Each pavilion has its own row of tables so there is no confusion about being seated. The food is of the best, perfectly cooked, appetizingly served, solid enough, and yet with variety enough to meet the demands of men who scorn the mere "kick-shaws" and want something to "chew on". The Superintendent is always seeking the opinions of the patients concerning their food, because good food and enjoyment of it are so essential to T.B. sufferers. Every reasonable complaint is so promptly investigated and anything that needs to be improved is so quickly improved, that unreasonable complaints are becoming so rare as to be almost unknown.

The patients feel that the whole plant is being administered for their profit and benefit. It is probably the greatest factor in the degree of content found at the San.

When a man has good food, well cooked and served, a good bed, plenty of clean, warm clothing, all the sunshine and air possible, light work suited to his capacity, recreation that stimulates and recreates without tiring him, the best of medical attention and nursing care, with plenty of companionship and sympathetic understanding, he is bound to improve in health if such improvement is humanly possible.

Another of the new buildings is the Nurses' Home, which in itself marks the passage of the San from a small institution to a great plant. Where once

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a head nurse and two assistants were the only staff the Medical Superintendent had, there are now a head nurse and eighteen to twenty nurses to assist the Superintendent and four other physicians. In the Home there is accommodation for thirty nurses, and with a private suite each for the Superintendent of Nurses and the Dietitian.

The original Sanatorium, now called the Administration Building, contains the offices of the medical staff, the business office of the San, the Medical Library and all the other branches concerned with administration, and also the dining room for Provincial patients. It may be said to be the head of the whole system, for from it out the orders and messages that make for the successful operation of the whole institution.

Heart of the Whole

But just as the finest head would be of little worth without the heart so all this effective management, all the fine buildings would count for naught were the Power House, the pulsating heart of the whole organization, less complete and effective. It is not for the uninstructed novice to attempt to describe such a wonderful place in technical terms. It would not be a matter of surprise if mistakes were made in any terms in such an undertaking. But no doubt of the efficiency of the system can remain in any mind after seeing it at work and noting the results. In this Power House with its towering chimney rising 125 feet above the ground and built of round brick, are five great boilers, two engines and two dynamos. These produce 450 HP and the whole institution is heated, lighted and supplied with hot water, dry steam and all the necessary mechanical power for conducting such an extensive plant. The necessary lubricating oil is added to the steam in one section, to provide electric light, and removed in another so that the exhaust steam used to heat all the buildings is entirely free from oil, and neither coats nor clogs the steam pipes. Nothing is wasted for after the exhaust steam has been used for heating it is again condensed and continues to feed the boilers. The very latest devises in shining cooper and glass gauges and indicators keep the engineering staff posted as to pressure of steam, temperature of water and the electric current. It is by no means the least fascinating of the new buildings. Here too, may be found the fire protection pump with a capacity of one thousand gallons a minute and from here radiates the system of hydrants and 8-inch pipes running throughout the whole institution.

Of course the steam and hot water pipes must be carried from the generating plant to the various buildings, and this is done by a series of 6-foot concrete tunnels, large enough to serve as passageways for patients in stormy weather, and thus help out the covered walks that connect the Infirmary. Administration and other near-at-hand buildings. The great reservoir, in close proximity to the Power House, has a capacity of 125,000 gallons for emergencies.

A Splendid Laundry

The laundry is one of the best equipped and most up-to-date of anything of its sort to be found in the Dominion, and it is in charge of a practical, experienced laundryman, Mr. Suttie. Although all the enormous laundering necessary for an institution which treats more than six hundred patients in the year, is done here, there are no sloppy floors, dripping walls or ceilings. Everything is clean, light, airy and dry. The great drum in which the washing is done is no more wonderful than the other great drum into which blankets and other articles are put dripping wet, and removed in twenty minutes bone-dry. The mangles and the electric irons complete the actual laundering and then follows the sorting

and counting in the adjacent linen room, where account of stock, of articles given out and articles returned, are forever going on. There is also a small repair room containing a sewing machine as well as other essentials. Here the proverbial "stitch in time" is given, and the saving to the institution can hardly be measured.

Even so slight a reference to magical changes in Kentville in two short years, will naturally bring to mind the men engaged in planning and executing them. The supervising architect is a young man, J. Graham Johnson, who has served his country well overseas, but surely no better than he has served and is serving it now in carrying out and adapting the designs for these beautiful buildings. The architects have grasped the true ideal of beauty and utility, not merely when considered separately, but when considered as a whole. Whether consciously or not, in grouping and adapting these buildings Mr. Johnson has built his own best memorial. Next to the architect must come the contractor, who, in this case, is a local man, Mr. C.H. Wright, of Wolfville. It is said that the work of carrying out the architect's plans has not been merely a business undertaking with Mr. Wright. He has caught the inspiration back of all the progress at Kentville and the building work has been done in the same spirit that infuses the administration.

Of the Medical Staff, too much could hardly be said. The work of Dr. A.F. Miller during the past ten years scarcely needs commendation, because it is known and appreciated throughout the whole Dominion. It has been no mean task to keep alive faith and ideals, to work always with an eye to that day when the institution should stand as a beacon of hope, a powerful bulwark against the steadily rising tide of tuberculosis in Nova Scotia. The day has come now, and these great buildings, when the returned soldier sufferers no longer need them, will remain as Provincial equipment for handling all tuberculosis cases, not merely incipient but also advanced. Within a decade there has been a close approach to his ideals for Kentville.

Of the physicians associated with Dr. Miller, perhaps the highest praise necessary is that they are at one with him in purpose and practice. Dr. R.J. Collins is Assistant Superintendent, and Dr. T.M. Sieniewiez, Dr. C.E.A. DeWitt and Dr. Sophia G. Laws are the other well known and successful specialists in tuberculosis. It is a gratifying proof of advancement to find a woman on the medical staff of this institution where there are always a large number of women patients. Miss Jessie M. Woodbury is the competent Superintendent of Nurses, and Miss Eizabeth H. Dobson, the Dietitian.

An Essential Factor

While it is true that the chief part borne by the Provincial Government in the great changes of the past two years has been that of a hearty, sympathetic co-operation, that co-operation was essential to success. Without it nothing that has been done could have been done. No matter how high the ideals of the head of an institution they cannot be effective if the head of the Department through which he must work is not in sympathy with his ideals. The Sanatorium works through the Department of Works and Mines, and a very large share of credit is due the Commissioner, Hon. E.H. Armstrong, for the understanding sympathy and earnest support he has given the Sanatorium project year by year. Any less helpful attitude could have materially hampered progress.

The very mention of Kentville brings to mind its two greatest industries around with the pretty town grows and flourishes. They are the railway shops and the Sanatorium. Kentville has practically been "put on the map", the new map of the new world, by these two great undertakings, and is bound to become more and more important

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PHYSICAL RETRAINING OF THE C.O.L.D. PATIENT

by Brenda Twite

We, in the health care field, are often confronted with people in whom the changes of chronic bronchitis and/or emphysema have already occurred - they are a fact - so what can we do for them? Unfortunately, we cannot cure them as such. We cannot give them a new pair of lungs, and we cannot repair the damage that has been done. However, what we can do is re-educate them, change their outlook, help them to use their damaged lungs to maximum efficiency, and even try to prevent further deterioration of the lungs. We can tell them to give up smoking, and teach them postural drainage and effective coughing and clearing of the lungs to ensure good bronchial hygiene.

A good part of patient re-education is physical re-training. Along with the lung changes and associated shortness of breath has come progressive general weakness. This is a downward spiral and quite understandable.

No one enjoys being short of breath, so they start to avoid the things that cause it. Unfortunately, exercise is one of these things. Shortness of breath on exertion is the most disabling feature of chronic obstructive lung disease (C.O.L.D.) for many patients and increased comfort during activity improves the quality of that person's life. Relatives and friends tend to over-protect and stop the patient from doing too much, being afraid that he will "over-do" things. The problem is that with lack of exercise the muscles get weak and with weak muscles the exercise tolerance and capabilities become less. Here occurs the vicious circle of the less you do, the less you are capable of doing, so the less you do, and down you go.

What the physiotherapist often faces are patients who are at a stage where they are only able to walk a few blocks, or maybe only across the road. Even walking across the room may make them short of breath, and they want help.

The concept of exercise training in place of resignation and stagnation goes back about twelve years, during which time several studies have been carried out and a number of exercise programs made available for C.O.L.D. patients.

Patients considered for exercise tolerance training should be free of joint disabilities (osteoarthritis and rheumatoid arthritis for example), and should have an electro-cardiogram prior to being subjected to stress by exercise. There should be no evidence of coronary disease or heart failure due to chronic airway obstruction. Respiratory tract infections should be treated promptly and exercise training stopped until the patient has recovered from the infection. Before starting on the program, patients have blood gas studies done at rest and on exercise. If the PO2 drops on exercise, a relative lack of improvement can be predicted and the patient should be given supplemental oxygen during training.

Understandably, anyone suffering from C.O.L.D. is going to be under a certain amount of tension. A quite common picture is a patient with his shoulders up near his ears, all the muscles in his neck and shoulders tensed, gasping for breath. With these

patients, the first things to work on is relaxation! That sounds like a contradiction in terms, but initially it really does have to be worked at, and the patient has to think about it, because at this stage, relaxation has to be done consciously. This is important, because tension is isometric muscle work and is using up oxygen, so in a sense the patient is defeating his own ends. He is using these muscles to assist with his breathing, yet he is needing extra oxygen to feed the muscles in their static work.

Therefore, to help achieve some relaxation, an alternative pattern of breathing has to be taught, and we term this as "diaphragmatic, pursed-lip breathing". This is relaxation of the upper chest and "abdominal filling" during inspiration, followed by prolonged expiration using the andominal muscles to empty the lungs, and pursed lips to provide some resistance. Thus a back pressure keeps the airways patent and prevents possible early airway collapse and trapping of air. Due to the loss of elasticity in the lungs, expiration is now an active part of breathing. Concentration on this expiratory phase of breathing is important, and the length of time allowed for expiration should be three times that spent on inspiration.

This method of breathing takes a lot of practice, and does not come automatically to someone who has been gasping for years. Some people have, however, already worked this out for themselves as the most effective way of getting their breath. It should be practised in different positions such as standing, sitting and lying, and is taught in walking and stair-climbing.

Patients are taught to do things in their own time and not to go at someone else's speed, as this could cause tension. Everyone is different. The right idea is to relax and do things at their own speed and in their own good time. Training is done in a group, which offers the advantage of being able to discuss problems with other people in similar circumstances and allows an exchange of ideas as to easier ways of doing things. There is no physical competition between patients, as everyone is different in age, physical ability and severity of disease, but they encourage each other.

Having emphasized relaxation and control of breathing, the next step is to get them doing more, so exercises are combined with breathing and are designed both to mobilize and strengthen. Again, done at their own speed, patients are encouraged to do as many exercises as they can. This may only be a few exercises at first, but it does not matter because they are starting the upward spiral in motion. They do what they can, rest, then do some more. They now know about diaphragmatic, pursed-lip breathing, so if they get short of breath they will be breathing quickly, but will gradually be able to control it. This in itself is a morale-booster, as they will not avoid exercise to the same extent since they will not have the same fear of getting short of breath, knowing they can stop any time and control their breathing and then carry on.

Before exercise tolerance training, the patient has a warm-up period of shoulder and thoracic mobility exercises and abdominal and leg strengthening exercises, combined with breathing. Any time the patient is in an upright or stretched position, he is breathing in. Any time he bends forwards of sideways, or rotates, he breathes out, so that he develops a rhythm, breathing while he moves. This way he can exercise for a greater period of time than if he takes a deep breath, does what he can and then ends up gasping for breath. The strengthening exercises are taught because the patient has gotten generally weaker due to lack of exercise, in particular the leg muscles. Strengthening of the oblique abdominal muscles is also

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PHYSICAL RETRAINING, COLD.

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worked on, as these are powerful expiratory muscles. Sit-ups are apparently of less value in strengthening expiratory muscles than oblique and pelvic stabilizing exercises.

These general exercises are simple but effective. You must remember that we are not trying to make athletes of C.O.L.D. patients, but to help them regain enough strength, and control their breathing well enough, to be able to walk a few blocks and climb the steps into their houses.

An important feature of the method of exercise training used is that it should be measurable. Thus walking (on the level or inclined, at a given speed), cycling (set rate and resistance) and steps (number and time) are all suitable.

The treadmill is used to assess exercise ability. The patient walks for as long as possible up to an arbitrary goal of half an hour. The level and time are recorded, along with pre-exercise and post-exercise pulse rate. Once 30 minutes walking is achieved, the gradient is increased up to 22 percent. Once this is achieved the gradient is lowered and they work back up, but this time with the speed increased to 2 m.p.h. At this point I will repeat - everyone is different - we do not have many patients who go up to or beyond the 2 m.p.h. stage. Any that have done so have been younger people (in their 50's) who had always been active in the past. Some patients never get off the level, but their time will improve, maybe from just 1 or 2 minutes walking the first time to almost one half hour. A 78-year-old man who has never been an active person could not expect to reach the level achieved by a relatively fit 50-year-old. They do not compete. Everyone has a different level. What we have to try and do is to help them get to their own best personal level.

On the bicycle ergomater, the patient's work is measured by speed and resistance. The patient can see the amount of work he is doing and can measure his improvement.

Another assessment that can be readily made is a simple step test. Using a 9 inch high stool the patient is asked to step on and off 30 times at a rate of one step every three seconds. At the end of this time the patient is categorized as follows:

1) Completion of 30 steps without symptoms
2) Completion of 30 steps - milk shortness of breath
3) Completion of 30 steps - severe shortness of breath
4) Inability to complete 30 steps due to shortness of breath.

Often a change in category can be observed as an improvement at the end of training.

Patients are encouraged to walk daily. They can measure the rate and distance and can train on the same route at the same speed to compare daily performance. A pedometer can be used to measure the patient's activity at home. These are reasonably priced and fairly accurate.

Most patients know when to stop exercise, although occasionally some people drive themselves too hard and must be taught to recognize their limits and adjust to them. They have to be watched carefully during exercise. The patients least likely to improve are those whose lung function is so poor there is no energy left for exercise, or those at the other end of the scale who already do a lot of exercise, like golf or walking. They may improve their leg and arm strength and be able to do extra activities after exercise training.

RON ILLSLEY
ESSO SERVICE STATION

We have found that with daily exercise training it takes, on an average, six weeks to plateau. After this the patient has to be encouraged to keep up exercise at home and try to maintain this new level of fitness. As an incentive to this, the patient has a follow-up visit one month after completion of the program and is assessed on the treadmill at his final level and speed. He is them recalled every three months for re-assessment. Some people even continue to improve after the program. With others, improvement tends to decline gradually, but exercise ability remains better than before training for from six months to two years. As patients are able to do more they become less sedentary and are found not to deteriorate at the expected rate following training.

With exercise training, we hope to improve the patient's quality of life and attitude towards it, and give them a new approach to their breathing problem. To do what they can, however little it may seem; stop if necessary to get their breath; not worry about other people's progress; allow plenty of time to do things; do things at their own speed, but do them. We consider this a generally more positive approach to exercise.

From: HEALTH

INCOME TAX DEDUCTION FOR SEVERE RESPIRATORY DISABILITY

To the editor: Section 38A of the Income Tax Instructions states that a disability deduction of $1,000 may be claimed by an individual who is confined throughout the whole year to a bed or wheelchair, or who is blind.

Application was made by the standards committee of the Canadian Thoracic Society that this tax deduction also be granted to patients severely disabled by emphysema or chronic obstructive lung disease, who may be just as severely handicapped as the paraplegic or blind person, even though not confined to bed or a wheelchair. The request was considered by the minister of finance and a favourable reply has been received, part of which is quoted for reference:

Claim for this $1,000.00 deduction by patients with severe emphysema or chronic chest disease who are almost completely confined to their rooms will, on an individual basis, receive favourable consideration provided the deduction will be supported, upon specific request, by a medical certificate.

Enquiry was made whether such a person would be permitted to earn an income and still claim the deduction. The following extract from the reply of the minister of finance is also favourable:

There is no provision in the Income Tax Act that would inhibit any person eligible to claim the special disability deduction under paragraph 110 [1][e] of the Act from earning income of any nature. The special $1,000 deduction will be allowed to a person with a severe respiratory disability if he satisfactorily establishes that he was confined to his room for a substantial period of time each day for a 12 month period ending in the year because of his disability and if he did not claim any remuneration paid to an attendant as a medical expense deducation for that taxation year. There are no other criteria.

These income tax concessions reflect the official understanding of the severe disability that can result from chronic lung disease.

Owen Clarke, MD
Chairman, standards committee
Canadian Thoracic Society
343 O'Connor St.
Ottawa, ON

The fellow with a closed mind is usually the one with the open mouth.

AIR-BORNE WATER POLLUTION

Ocean waters and sea breezes, a folklore panacea for lung ailments, actually may be the source of some bacteria causing lung disease.

Mycobacteria may be incubated in the sea, released into the air by the bursting of a salt water bubble, carried overland by the breeze, and breathed deep into the lungs, suggested Howard Gruft, Ph.D., senior research scientist, New York State Department of Health, Albany.

Mycobacteria, microorganisms resembling the TB bacillus, are increasingly important as a source of infection in man. These atypical or anonymous bacteria can cause chronic lung infections ranging from mild to fatal, which mock other diseases. Both the responsible organism and the source of infection can be extremely difficult, sometimes impossible, to trace. However, skin tests with antigens made from strains which have been isolated reveal geographic distribution patterns.

Such distribution of sensitivity to Mycobacterium intracellulare along the Southeastern US seacoast from Virginia to Florida and westward along the Gulf of Mexico prompted Dr. Gruft to wonder whether that mycobacteria might come from the sea. He knew also that such organisms had been found in birds which fly over offshore waters, and that plankton, other bacteria and organic debris have been collected from the air above the ocean.

Dr. Gruft's first step was to find out whether the mycobacteria could survive in ocean waters for long periods of time. Samples of sea water collected near Woods Hole, Mass., were inoculated with M. intracellulare and incubated in flasks for two weeks at 35 degrees C. The number of bacteria in the flasks remained stationary at temperatures up to and including 37 degrees C, the prevailing ocean temperatures off the Southeastern US coast.

Twenty-four samples of surface or subsurface water then were collected off the Georgia coast and sent to New York state health department laboratories for isolation and identification of any bacteria they contained. M. intracellulare and a variety of other microorganisms were found.

The next step was to investigate whether the mycobacteria could be released into the air through droplets. Using an apparatus in which a bubble of air is passed through a tube of water containing M. intracellulare, the investigators were able to control the period of time in which the bubbles are held within the saline solution, and to capture them upon release. As they burst through the surface, the bubbles produce droplets of various sizes which rise above the water. The researchers caught the highest rising droplet from each tube, and determined its size from its impression on a gelatin covered slide used for capture. Agar plate cultures revealed an average of 138 droplets studied, and Dr. Gruft said bacterial concentrations in the droplets could be as much as 500 times that of the saline soltuion.

Upon evaporation, the droplets form nuclei of one to 45 microns in diameter, which are capable of remaining in the air while being carried hundreds of miles inland. Many of these droplets are small enough to penetrate into the alveoli, the smallest lung airways, where the infection process can begin, Dr. Gruft said.

Future studies will attempt to further identify mycobacteria found in ocean water by skin tests with sensitized guinea pigs, and isolation and identification of mycobacteria from the air above the ocean and island.

(continued on Page 13)

HISTOPLASMOSIS

Dr. Andrew G. Dean, acting director of communicable diseases for the Arkansas State Health Department, and an epidemic intelligence officer for the US Centre for Disease Control, told the joint annual meeting of the American Lung Association and its medical section, the American Thoracic Society, that bird droppings dumped from the rooftop past window air conditioners have been identified as the source of an epidemic of histoplasmosis, among 50 employees and visitors to an Arkansas county courthouse, last July.

Six of those with clinically-proven histoplasmosis had visited the courthouse for periods as brief as 10 minutes on one of the days. Although there is some evidence that histoplasmosis can confer immunity, clinical and blood tests indicated four of the 50 who became ill were reinfected during the exposure.

Two workmen who cleaned the foot-high accummulation of bird manure from the courthouse tower were among those who developed histoplasmosis. One was hospitalized. The attack rate among employees working near the wall where the droppings were dumped was 63 percent, compared to 34 percent of those working in other areas.

More than half of the 84 employees inside the building suffered fever, cough, chest pain, muscular aches and/or had laboratory evidence of "histo" infection during late July - early August, after a normal incubation period.

There were 410 responses to queries of 1,090 citizens who visited the courthouse during the exposure period. 26 percent of the respondents had symptoms, and clinical histoplasmosis was confirmed in seven individuals. Of those exposed, but without symptoms, 87 percent had positive skin tests for "histo".

Spores of the fungus, Histoplasma capsulatum, apparently were sucked into the air conditioners and circulated in the building air. After the outbreak, the building contractor soaked the infectious material with a 3 percent formalin solution on three occasions and buried it. Air conditioner filters were changed by workmen with positive skin tests, wearing protective masks.

Dr. Dean said epidemics like this could be prevented if construction and other workmen would wet down dusty materials that contain bird droppings before handling them. He urged building contractors to advise their employees of the danger of histoplasmosis infection, and to instruct them in preventive measures.

"Journal of Breathing"

AIR-BORNE WATER POLLUTION

(continued from Page 12)

When all the data are evaluated and compared, Dr. Gruft anticipates additional evidence for the ocean as a source of the high level of skin sensitivity to M. intracellulare among people living in the Southeastern United States.

Duncan Blanchard, Ph.D., senior research associate, State University of New York, John Wheeler, Ph.D., research associate, University of Georgia, and Julius Katz, M.D., retired, New York State Department of Health, having been associated with Dr. Gruft in the study.

"Journal of Breathing"

Stumbling blocks and stepping stones are the same. It depends altogether on how you use them.

Remember your tongue is in a wet place and likely to slip.

Anon

Chaplain's Corner

Mgsr. J. H. Durney
in THE VETERAN

LOVE OF NEIGHBOR

If we examine the parable of the Good Samaritan, we shall see that Christ teaches us two lessons: 1. He teaches us WHO our neighbor is; and 2. He teaches us that we must DO something for our neighbor.

Having heard this story, no Christian could even have any doubts as to WHO his neighbor IS. The neighbor is every human being whom God ever created. Every man that God created is truly deserving of my love, because God thought enough of him to make him into His own image and likeness and to give him a chance one day to life forever in heaven. There is no way we can whittle down this meaning of the word "neighbor" after Christ's parable on that point.

The second lesson Christ teaches us by the parable is that we have to put our love of neighbor into practice. When the lawyer raised the theoretical, legal question, "Who is my neighbor?" Christ did not stop with the mere theory involved. He gave a practical direction: "Go and do in like manner".

What a strong warning there is in Our Lord's words not to render mere lip-service to the second great commandment. The Samaritan was very practical. He administered first aid, took the wounded man to the nearest inn, paid the inn-keeper for the man's hospitalization, and promised to pay, on his return, anything that may be owing him. The Samaritan was being charitable because that was what God had told him to do.

We, too, must be good neighbors not merely in theory but in practice. We have to "go and do in like manner". What we do does not have to be spectacular; it just has to be done out of love for God. We can be a good neighbor by being pleasant to those who serve us, by practising patience with those around us, by sending a get-well card to someone sick or paying them a visit - in fact there are many ways in which we can practise charity: by a coin, a word of advice, a smile, a prayer, by repressing our ill-humor, by being courteous in a discussion over politics or sports.

God wants all men to practice charity. He did not give that commandment to Saints alone. Every day He will give us many opportunities to practise charity in small ways which He Himself alone will see and reward. "Go and do thou in like manner".

HISTORIC SKETCH OF THE NOVA SCOTIA SANATORIUM

continued from Page 7)

because of them. The completion of the San is not yet. Nineteen is by no means the magical number which shall complete the pages in the book of buildings to be credited there. The growth of the library, increased this year by a gift of 600 books from the New Glasgow Red Cross Society, has overcrowded the space devoted to it. A generous friend who does not care for notoriety, is even now providing a separate Library Building, which will be finished by the autumn. There is a whisper to the effect that the Red Cross Society will make further contributions of books to fill the shelves.

It may thus readily be seen that any account of the great institution at Kentville must always be regarded as incomplete. It is a record of progress only, and is typical of the advance we are slowly making to that great goal of public intelligence which will eventually lead to public health and public happiness.

Reprinted from "Health Rays"

QUESTIONS AND ANSWERS

QUESTION: Does parental smoking have any direct effect on the health of their children?

ANSWER: This question has been debated for years but several recent studies do offer concrete evidence that the smoking habits of parents can definitely cause damage to the lungs of their children. There is impressive statistical data showing that serious life-threatening respiratory disease in infancy, such as pneumonia and bronchiolitis, is directly related to the smoking habits of the parents. In addition, the smoking patterns of parents during the early years of a child's life produce changes that may contribute to the later development of chronic respiratory disease.

Two studies are especially significant. One investigation in Israel studied over 10,000 infants who were admitted to the hospital during the first year of life and whose mothers' smoking habits were known. The infants of smoking mothers had substantially more admissions for pneumonia and bronchiolitis. In fact, the admission rate was found to generally be in direct proportion to the number of cigatettes smoked by the mother. In a London study somewhat similar results were obtained. There the smoking habits of parents were compared to the incidence of pneumonia and bronchitis in their children during their first five year of life. Smoking by one or the other of the parents increased the baby's risk during the first year of life; the effect was greatest when both parents smoked. In neither study, however, did research indicate that passive smoking by infants contributed to upper-respiratory tract ills.

It is more difficult to assess whether or not parental smoking increases the infant's risk of developing chronic lung disease as an adult. However, several investigators have found that serious chest disease in childhood, whether or not related to smoking, increased the risk of developing chronic respiratory symptoms and abnormalities in pulmonary function during adult life. In other words, passive smoking by the infant that leads to acute pneumonia or bronchiolitis places the baby at a greater risk to develop symptoms and functional changes suggestive of chronic obstruction pulmonary disease.

Parents who do smoke can take some simple measures that will in all likelihood decrease the risk to infants. For example, a mother could refrain from smoking when in close contact with her babies, such as in breast feeding. Also, it would be advisable to not allow infants to sleep in rooms where cigarettes may be smoked during their sleeping hours.

"Journal of Breathing"

Two Irishmen, newly arrived in America, decided to try their luck in one of our restaurants. The waiter brought them their food, at the same time placing a dish of horseradish on the table. Neither Clancey nor Patrick had every seen horseradish before, and to them it looked like a new kind of jelly. Clancey decided to try it, and took a heaping mouthful. Immediately the tears sprang to his eyes.

"What's the matter, Clancey? Why are you crying?"

Clancey didn't want to admit his mistake and replied: "I am crying because I just thought of my poor grandfather who was shot".

Patrick sympathized, and then decided to try the horseradish himself. In no time at all he, too, was crying. Now it was Clancey's turn to ask the reason for the tears.

"I'm crying", said Patrick "because they didn't shoot you at the same time they shot your grandfather".

OLD TIMERS

Among recent visitors to the Miller Hospital was Zeno MacDonald from Arisaig, accompanied by his wife. Zeno was very active in craft work as a patient and has continued this at home. Their son, Ian, was a patient at the same time as his father and was making good progress with school studies while here. Ian has now graduated from university and is working in Alberta.

We are told that Mrs. Margaret Doyle from Arichat was also a recent visitors, and had been a patient some years ago.

We have a note from Harold S. Kennedy, Boutilier's Point, who says that he has enjoyed Health Rays and is sorry that it is being discontinued. He writes, in part, "I visited the 'San' one Sunday during the summer and was amazed to see the many changes there, both in the hospital and about the grounds. However, it's still a beautiful place and will always be a very special spot to me. Through the excellent care I received from the doctors, nurses and other staff, I was able to regain my health and live a very normal life again. Best wishes to all who care for the patients in the San".

Early in October I was pleased to have a talk with Arnold Lee Skillin, formerly from Digby, who stopped in for a visit. Arnold had spent most of his time on the cure at Roseway Hospital, where he was admitted on April 8, 1954 and discharged on October 22, 1960 when the tuberculosis service was being closed out at that Hospital. He was also a patient at the San, where he underwent surgery.

During his lengthy time at Roseway he spent considerable time as Radio Operator, took typing for awhile, completed a correspondence course, and worked at photography. He then decided upon photography, developing and printing, as a vocation and, after release from Hospital, continued this training through the Rehabilitation Program, under Gerald Whynot. Arnold says that he has now achieved considerable success in this field and is engaged in industrial and commercial photography with an employer whom he feels is the "second-best photographer in Toronto". Arnold won a trip to the Bahamas last year through the quality of his work and is very happy in this career. His wife works in "an old folks' home" outside Toronto. Friends will recall that in June '57, he married Rose Anne Muise, who was a staff member at Roseway while he was a patient.

It is good to see that Arnold is well, and to know that his hobby which was started at Roseway Hospital, has become a satisfying career.

On October 15 we were pleased to have a visit from Mr. and Mrs. John B. Campbell, 16 Churchill Centre, Glace Bay. Mrs. Campbell, formerly Winnie Cameron, was a patient at the San from May 12, '36 to July '39. This was the first time that she had visited the East Infirmary in all those years although, about 15 years ago she had visited Beulah Trask in the Annex. At that time the Campbells had their five children with them, so didn't have much time to visit. This time she was able to visit the First and Third floors and see what looks the same, and what has changed. Certainly the scene from the windows has changed more than the interior of the East Infirmary, she observed, although (very recently) the open porch on East I has been partitioned into rooms. She spoke of many former patients whose names are still familiar to us, and mentioned the year that she was on the San Float at the Apple Blossom Festival, with Harriett Durno, Ann Rebecca MacDonald, Madge Conrad, and Leo Amirault. On some future visit she is going to allow time to look through some of the bound volumes of Health Rays from the mid 1930's.

We are pleased to pass along the news that Marion Downey, who was here a couple of years ago, is to become

Mrs. Ingram Byard on October 22nd. The wedding is to take place at St. Thomas Baptist Church at North Preston. Marion's address is Box 206, Dartmouth, B2Y 3Y3. Our very best wishes!

I just had a talk with Wally Burgess while shopping down town, and this is noteworthy because I hadn't seen him for many months. He is at the same address on Cornwallis Street and I am glad to say that he is remaining well.

Someone else whom I hadn't seen for a long time was Miss Madeline Spence, R.N., from Ellershouse. She was here for an annual x-ray in October, and it is good to see that retirement is agreeing with her. She says that it was eight years ago that she left the San, which scarcely seems possible.

Next, we have some notes from Anne-Marie:

Grace and Lee Nickerson accompanied by Helen and Al McKinnon travelled to the South Shore while on vacation this fall. First, they visited Bertha, Lee's sister, now Mrs. Allen in Shelburne. Bertha was a patient here in 1940. Her two sons are married and she enjoys visits from her grandchildren. Also, she enjoyed a trip to the States last spring.

While in Shelburne, Helen and Kay Servant got together for a cup of coffee and to talk over old times. Kay was here in 1942. After a period of treatment, she worked in the lab and was editor of Health Rays for a while. She has remained well and, according to Helen, has not changed at all.

Although they did not see Hazel Grinnell, nee Hamilton, they heard that she comes back to her home town (Carleton Village, Shelburne County) for a visit every summer. We were sorry to learn that her husband has passed away. Hazel, who was here in 1940, makes her home in Wisconsin, USA, at the present time.

Mrs. Lillian Cameron who was a patient here in 1941 lives in Shelburne where she is a companion to a Mrs. Mack. Lilliam has kept well.

When going through Upper Ohio, they saw Cecil Jones who is well, and they also stopped in to see Fernwood Lowe who is busy with his craft shop.

While in Victoria Beach, Annapolis County, they visited Dorothy Snow, now Mrs. Bob Everett. Dot is well and enjoys having company. They also saw Allan Ring who feels better after having had a stroke.

In Annapolis Royal, they dropped in to see Mr. and Mrs. Lorenzo Wolfe. Lorenzo was here in 1943. He works at the Annapolis Royal General Hospital and his wife runs a nursing home in Annapolis. And so ends the "Old Timers" tour!

Marion Saunders, formerly Ricker, who worked in our lab in the '40's called on Helen McKinnon and paid a short visit to the Miller Hospital this month. She lives now in Charlottetown, PEI. And Mae Margeson of Berwick had a visit from Jean MacDonald's Z(nee Halpard) daughter when the latter was on her honeymoon. Jean, who worked in the lab in the early '50's makes her home in Kingston, Ontario.

Helen Comeau of Salmon River, Digby County, visited Mary and Percy Doucette in New Minas this month. She reports having had good luck with her garden and has now a good supply of preserves for the winter months.

Another popular expatient and former staff member, Grace Adams, spent a few days in Kentville visiting Mrs. Campbell and me. Grace is sporting a new car and is busy as a bee while at home in Masstown. She is president of the New Horizons group in her area and is also quite active in church work. She and I drove down to Weymouth North to visit Frances Carr

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Ins And Outs

MILLER HOSPITAL
ADMISSIONS

SEPTEMBER 1 TO SEPTEMBER 30, 1976

JAMES WILLIAM TRACEY, Hillaton, R.R. 1 Port Williams; CARMEN LLOYD SLAUNWHITE, Lower LaHave R.R. 1 Riverport; MRS. MIMA MAHANEY, Riverton Heights, R.R. 1 Stellarton; HARLAN BORDEN BENT, North Williamston, R.R. 1 Lawrencetown; JOHN THOMAS PYE, 5868 Sebastian Street, Halifax; JOSEPH FRANKLIN LLOYD, Lydgate, Box 162 Lockeport; MRS. FAE DARLENE PEMBERTON, Newport Station; MRS MARIE ALBERTA THOMAS, Tiverton Digby Co.; JOSEPH ALBERT COMEAU, St. Alphonse, R.R. 1 Meteghan; MRS. CARRIE BLANCHE STEVENS, 81 Lanzie Road, Kentville; NORMAL WILFRED BARKHOUSE, Summerville, Hants Co.; MEDLEY TUPPER CROSSMAN, 7 Abbott Street, Amherst; JAMES ANTOINE HICKS, Box 92, Meteghan River; REGINALD LAURIE MURPHY, Fox Island, R.R. 1 Canso; RONALD CLAYTON HEWEY, Annapolis Royal; CARL FREDERICK SMITH, 254 Commercial St., Middleton; MRS. DEBORAH RUBY-ANN SELIG, 73 Hillside St., CFB Cornwallis; LEMUEL JOHN HIMMELMAN, Dublin Shore, R.R. 1 LaHave; ROY GARFIELD PRIEST, Senior Citizens' Residence, Great Village; PAUL ANTHONY TAYLOR, R.R. 1 Berwick; ROLAND MARR HOOPER, Pictou Landing, R.R. 2 Trenton; MRS. LEENA BEATRICE BOWDEN, 3 Church Street, Parrsboro; WINSTON BERNARD MULLEN, Sheffield Mills, R.R. 5 Canning; WALTER LEO COLE, R.R. 5 Kingston; CHARLES HAROLD FOX, 18 Caldwell Ave., Kentville; CLIFTON JAMES SAWLER, Lakeville, R. R. 1 Kentville; DAVID LLOYD WHYNOTT, 7 Idlewylde Road, Kline Heights, Halifax; ISAAC JOSEPH DOUCET, R.R. 1 Saulnierville; NORMAN EMMERSON KEDDY, R.R. 3 Wolfville; ARTHUR CALEB ARENBURG, Halls Harbour, R.R. 5 Centreville; ADOLPH OWEN AMERO, R.R. 1 Plympton, Digby Co.; DANIEL RODERICK MacPHERSON, Erinville, Guys. Co.; MRS. ELVA JEAN DeMONE, New Germany; MRS. MYRA ROSE FOSTER, Greenwood Village; FREDERICK DONALD SEAMAN, 25 Mountainview Dr., Kentville; RONALD EARL MacLEAN, Margaretsville; ANGUS MacFARLANE ACKER, Shelburne; EARL St. CLARE WEATHERBEE, 5 Linden Ave., Wolfville; PETER ANTHONY COPAGE, Micmac, Hants Co.; MRS. EUNICE ISOBEL CUNNINGHAM, Wilmot Sta., Anna. Co.; WILLIAM ARTHUR MARRIOTT, Grand Pre; MRS. SYLVIA MARY MUISE, 30 Queen St., Yarmouth; DANIEL WILLIAM CHISHOLM, 28 Union St., Pictou; CLARENCE COURTNEY HOLMES, Hants Border; FRANK MORTON KNICKLE, 209 Green St., Lunenburg; MRS. GEORGIE EVELYN GERTRIDGE, 14 Leverett Ave., Kentville; LESTER PACKARD GRATTO, Comp. 16 Dominion St., Parrsboro; MRS. JOAN MURIEL IVEY, 490 Highland Ave., Windsor; ROY DOUGLAS SCHOFIELD, R.R. 1 Kentville; DANIEL WAYNE CAINES, Conquerall Bank, Lun. Co.; MURRAY EDWARD KYNOCK, R.R. 2 Kentville.

DISCHARGES

SEPTEMBER 1 TO SEPTEMBER 30, 1976

THOMAS CLYDE SABINE, Box 432, Kingston; JOSEPH URBAIN BELLI-

VEAU, Box 15, Belliveau's Cove; MRS. WHIELEMA SHIRLEY BROWN, 6 Hill St., Amherst; JAMES ALAN BANKS, R.R. 1 Waterville; ELLIS WARD DREW, Springfield, Anna. Co.; BASIL CLYDE BUSH, Bush Island, Lun. Co.; MRS. KATHLEEN MARY JOHNSON, Highbury, R.R. 2 Kentville; MALCOLM MITCHELMORE, Ingomar, Shel. Co.; ELDON RUSSELL BARKHOUSE, Kentville; RALPH HENDERSON BEARD, Box 1266, Middleton; MRS. MARION CHIPMAN MORSE BEATTIE, 15 Kent Ave., Wolfville; CLARENCE COURTNEY HOLMES, Hants Border; CARMEN LLOYD SLAUNWHITE, Lower LaHave, R.R. 1 Riverport; MARJORIE VERA LEWIS, Lower Five Island, Cumb. Co.; JAMES FRED CROWELL, Baccaro, Shel. Co.; MRS. ROXIE ELIZABETH VANCE, R.R. 1 River Hebert; HARLAN BORDEN BENT, North Williamston, R.R. 1 Lawrencetown (Deceased); CECIL AMOS LEWIS, Port Lorne, Anna. Co. (Deceased); MRS. RITA MARY COOLEN, Fox Point, R.R. 1 Hubbards; MRS. LEONA BEATRICE BOWDEN, 3 Church Street, Parrsboro; CARL FREDERICK SMITH, 254 Commercial St., Middleton; FREDERICK DONALD SEAMAN, 35 Mountain View St., Kentville; MRS. FAYE DARLENE PEMBERTON, Newport Sta., Hants Co.; MRS. MYRA ROSE FOSTER, R.R. 6 Kingston; RONALD CLAYTON HEWEY, Annapolis Royal; WINSTON BERNARD MULLEN, Sheffield Mills, R.R. 5 Canning (Deceased); RAYMOND EARL CROFT, Hebb's Cross, R.R. 1 Italy Cross; JAMES ANTOINE HICKS, Meteghan Sta., P.O. Box 92 Meteghan River; MRS. SYLVIA MARY MUISE, 30 Queen St., Yarmouth; CLARENCE COURTNEY HOLMES, Hants Border, Box 116 Hantsport.

Teacher "Give a definition for deficit".

Student: "That's what you've got when you haven't got as much as you had when you had nothing."

INDOOR POLLUTION THE GREATEST HAZARD

"It is time we took a hard look at the quality of indoor air where most of us do our breathing", says Dr. Frederick H. Shair, professor of chemical engineering at California Institute of Technology, who has been unearthing some alarming facts during his study of air conditioning systems in the Los Angeles area.

"The air inside the average home is actually more polluted than the air outside it", according to Dr. Igho H. Kombleu who heads the Department of Physical Medicine at the University of Pennsylvania. "The indoor atmosphere is loaded with junk of all kinds, and not just chlorine gas produced throughlessly when household cleaner is mixed with bleach.

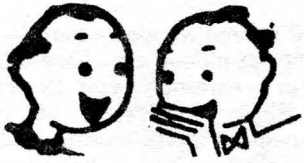
Vaporized cooking oils and aerosols of all kinds emit vapors that may be harmful. No one really knows what happens when we breathe the almost imperceptible amounts of deodorants, disinfectants, cleaners, polishes and other products used regularly within the home".

"Air pollution inside homes is far greater health hazard than outdoor air pollution. Pollution from gas stoves and gas heaters, cigarette smoke and aerosol sprays is a principal cause of lung diseases", says Dr. Arend Bouhuys of Yale University. "Outdoor pollution is realively minor".

Then there is the matter of insultation. "A well built, heavily insulated house can be so snug very little air is let in or out. Although

(continued on Page 21)

Just Jesting



He was reading to his wife an account of a famous naturalist's death.

"Reaching for a rare plant, he slipped over the cliff, and as he fell he gathered momentum".

"Oh George", she interrupted. "The poor man! What an enthusiast he must have been. Fancy picking flowers even as he feel to his doom".

Did you ever see the Catskill Mountains?

"No, but I've seen 'em kill mice".

"The thing for you to do", said the doctor to the man with the frazzled nerves, "is to stop thinking about yourself - to bury yourself in your work".

"Gosh!" returned the patient, "and me a concrete mixer".

A hobo knocked on the door of a farmhouse asking for something to eat.

"First, let me show you something", said the farmer's wife, pointing to the woodshed where there was a pile of uncut wood.

"Do you see that wood?"

"Do you see that wood"? she asked.

"Yeah, I seen it."

"You should say, I saw it'."

The bum looked at her and said, "Lady you saw me see it, but you ain't going to see me saw it".

Proud Parent: "Mind you, our baby is not quite a year old and has been walking for two months!"

Bored Visitor:

Bored Visitor: "Really, he must be tired".

Oliver Wendell Holmes once mistook an insane asylum for a college. Realizing his mistake, he explained to the gatekeeper and commented humorously:

"I suppose after all, there is not a great deal of difference".

"Oh, yes, there is", replied the guard. "In this place you must show some improvements before you can get out".

Don't worry about mechanical brains taking over. If machines get too powerful, we can just organize them into committees.

Father: "Your young man was at my office today, my dear, and asked for your hand in marriage".

Daughter: "But, Father, I hate to leave Mother".

Father: "Perfectly all right, my dear. Take her with you".

Judge: "Your husband complains that he leads a dog's life".

Wife: "Well, there is a similarity, your honor. He comes in the house with muddy feet, tracks across my clean floor, barks at nothing, growls at his food, and makes himself comfortable on the best furniture".

A Hollywood producer received a story entitled "The Optimist". He called his staff together and said: "Gentlemen, this title must be changed to something simpler. We're intelligent, and know what an optimist is, but how many of those morons who'll see the picture will know he's an eye doctor.

Although death and taxes are both inevitable, death has one thing in its favor. It doesn't get worse every time the legislature meets.

INDOOR POLLUTION

(continued from Page 19)

solving one problem, it may create another. Outside air moving into a house at the rate of 20 cubic feet a minute should keep the air fresh and support a gas-burning range with up to four person in the house", according to a Boston researcher. A house too well sealed does not provide that amount of air.

One mid-western family insulated their home by wrapping it completely in $5-worth of plastic. This resulted in a 10 degree rise in temperature and a problem of opening outside doors.

Dr. Donald Bartlett Jr., Dartmouth physiology professor, who would rather prevent lung disease than try to correct deficiencies with surgical gymnastics, says contaminated air may retard lung development in children under eight. "Only ten percent of the 300 million tiny air sacs which make up ninety percent of the human lung are present at birth. All the rest develop during the first seven or eight years. It is a real possibility that breathing polluted air during these years could determine the development and capability of the lungs a person has for the rest of his life".

"Given fresh, oxygen-rich air, your heating system works more efficiently; fresh air is easier to heat", according to research Myron Haas. Tenants of tightly sealed apartments are seldom warm and confortable, even when the temperature is above 70 degrees. So they turn up their thermostats and look for more cracks to seal. But human combustion, like a wood fire, needs adequate oxygen; a small inflow would soon activate the internal heating process.

"Journal of Breathing"

Every man is at his best when he adds enthusiasm to whatever he honestly belives in.

-Wanamaker

IN APPRECIATION

The wife and family of the late Winston B. Mullen wish to express their sincere appreciation of the care given to him while he was a patient at the San and later at the Miller Hospital

Special thanks to Drs. Quinlan and Kloss, Miss Skerry, and staff in the Intensive Care Unit.

Marion, Myrna and Eric Mullen
R.R. 5 Canning, N.S. B0P 1H0

CALLOW COACH RIDES

On October 12 we were pleased to have the Callow Coaches at the Miller Hospital to take our patients for drives in the morning and afternoon. We were fortunate in having just the right day for the outings, for the weather was fine and the leaves were still at their prettiest.

Once again, we wish to express our sincere thanks to the Walter Callow Veterans' and Invalids' Welfare League for including our Hospital in their busy schedule.

OLD TIMERS

(continued from Page 17)

where we enjoyed a delicio Thanksgiving Day dinner. Fran devote. most of her time to caring for her relatives at home and is her same cheery self.

Grace reports hearing from Elsie Quigley of Halifax, or "Quig" as she was affectionately called by her San friends. Mrs. Quigley was here in the '40's and is fairly well, in spite of her arthritis.

Miss Madeline Spence of Ellershouse reported for her check-up this week. Her many friends will be happy to learn that she is keeping well and looks much the same as ever.

THE MILLER HOSPITAL
ACTIVE STAFF

H.M. HOLDEN, M.D., F.R.C.P. (C) F.C.C.P. . . . . Medical Director
J.J. QUINLAN, M.D., F.R.C.S. (C), F.C.C.P. . . . . Surgeon
F.J. MISENER, M.D., F.C.C.P. . . . . Radiologist
MARIA ROSTOCKA, M.D. . . . . Physician
*G.A. KLOSS M.D., F.C.C.P. . . . . Physician
BARBARA LEITCH, M.D. . . . . Physician

CONSULTANTS

S.V. ANAND, M.D., F.R.C.S. (E & C) F.A.C.S. . . . . General Surgery
D.W. ARCHIBALD, M.D., F.R.C.P. (C) . . . . . Psychiatry
S.F. BEDWELL, M.D., F.R.C.P. (C) . . . . . Neurology
J.C. CROSBIE, M.D., F.R.C.P. (C) . . . . . Pediatrics
T. DOK, M.D., D.O.M.S., D.L.O. (Eng.) . . . . . Ophthalmology & Otlaryngology
P.P. GEORGE M.D., F.R.C.P. (C) . . . . . Psychiatry
J.A. HYNES, M.D., F.R.C.P. (C) . . . . . Internal Medicine
C.E. JEBSON, M.D., F.R.C.S. (C) . . . . . Urology
*D.H. KIRPATRICK, M.D. . . . . Anaesthesiology
B.F. MILLER, M.D., F.R.C.S. (Ed.) F.R.C.S. (C) . . . . . Orthopedic Surgery
D.M. MacRAE, M.D., F.R.C.S. (C), F.C.C.P. . . . . Bronchoscopy
G.M. SMITH, M.D., D.P.H. . . . . Preventive Medicine
P.W.S. WATTS, M.D., M.R.C.O.G., F.R.C.S. (C) . . . . Obstetrics & Gynaecology

* Certified by P.M.B.

ADMINISTRATIVE

J.T. BETIK. . . . . Administrator
MISS E. JEAN DOBSON, R.N., B.Sc.N . . . . . Director of Nursing
MISS EILEEN QUINLAN, B.Sc., P.Dt. . . . . Senior Dietitian
DONALD M. BROWN, B.A., B.Ed., M.S.W. . . . . Director of Rehabilitation

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Church Affiliation

ANGLICAN
Rector — Archdeacon Dr. L.W. Mosher
Hosp. Chaplain — Rev. William Martell

BAPTIST
Minister — Rev. A.E. Griffin
Lay Visitor — Mrs. H.J. Mosher

CHRISTIAN REFORMED
Minister — Rev. H. Kuperus

PENTECOSTAL
Minister — Rev. T. Kenna

ROMAN CATHOLIC
Parish Priest — Rev. Clarence Thibeau
Asst. Priest — Rev. Luc Gaudet

SALVATION ARMY
Capt. Sidney Brace

UNITED CHURCH
Minister — Rev. Ian MacDonald
San. Chaplain — Dr. J. Douglas Archibald

The above clergy are constant visitors at The Hospital. Patients wishing a special visit from their clergyman should request it through the nurse-in-charge.