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MUSKOKA FREE HOSPITAL FOR CONSUMPTIVES

ESTABLISHED APRIL, 1902

C. D. PARFITT, M.D., M.R.C.S., L.R.C.P., *Physician-in-Charge.*

This institution is for those unable to pay anything or who can only pay in part for their maintenance. Like the sister institution, the Cottage Sanatorium, it is intended for those in the earlier stages of the disease, and is situated about one mile distant from the Cottage Sanatorium.

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All profits of CANADIAN OUT-DOOR LIFE, from subscriptions and advertising, will be devoted to the maintenance of patients in the Muskoka Free Hospital for Consumptives. Subscribe now and ask your friends to subscribe. \$1.00 a year.

FORWARD STEP

IN THE INTERESTS OF

Muskoka Free Hospital for Consumptives

The growing interest in the out-door treatment of tuberculosis makes the present time opportune for the publication of a journal devoted to the gospel of fresh air.

The National Sanitarium Association has led in the building of Sanatoria for Consumptives in Canada.

In educational propaganda it has ever been in the fore.

The Tuberculosis Exhibition held in Toronto for two weeks during August, and that created widespread interest among the medical profession and laymen, was brought here on the direct initiative of the National Sanitarium Association, and all expense was borne by this Association.

With this record for aggressive work in the interests of the consumptives of Canada it is, perhaps, natural that the N. S. A. should take the further forward and important step indicated in the publication of a monthly magazine devoted to the advocacy of these ends.

And here is the CANADIAN OUT-DOOR LIFE to fulfil this mission. Are we to have your aid? Are we to count you a subscriber now?

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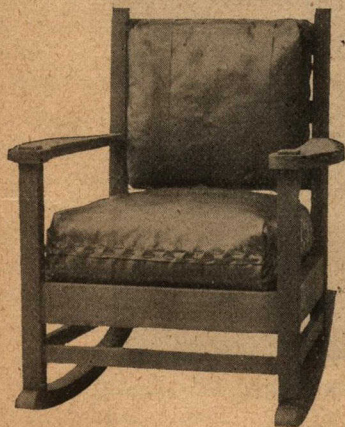
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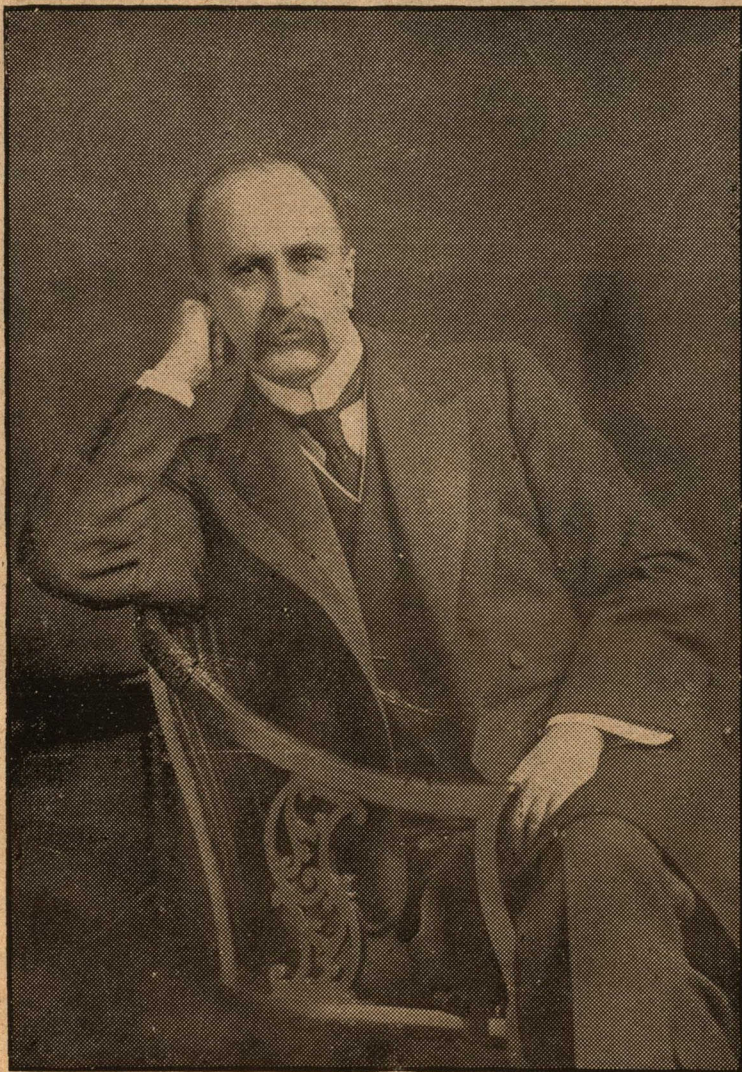
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PROF. WILLIAM OSLER, OXFORD, ENGLAND.
The distinguished Canadian.

"No work has been undertaken in Canada fraught with so great possibilities."—Prof. Osler's reference to the work of the National Sanitarium Association.

CANADIAN OUT-DOOR LIFE.

A MAGAZINE DEVOTED TO THE GOSPEL OF OUT-DOOR LIFE
IN THE TREATMENT OF TUBERCULOSIS, AND THE VALUE
OF FRESH AIR AND HYGIENIC LIVING FOR EVERYONE

VOL. I

TORONTO, CAN., NOVEMBER, 1906.

NO. I

Tuberculosis---What it is, and its Cause

By W. J. DOBBIE, M.A., M.D.C.M., Physician-in-Charge, Toronto Free Hospital for Consumptives.

TUBERCULOSIS is a disease which may be contracted by any person, at any age, and in any locality, provided that the two conditions necessary for its development are present. It is a disease, moreover, which is now known to be not only communicable, but also both preventable and curable. But it is not, as people generally suppose, a disease which is either hereditary or limited to but one form. On the contrary it is, as we may say, mildly communicable, and its manifestations are so numerous and so totally different in appearance the one from the other that it is often difficult to believe that there is any connection between them or that they are due in all cases to one and the same cause.

Tuberculosis may show itself as:—

- (1) Consumption of the lungs.
- (2) Joint Disease—such as Hip Disease, or the familiar old White Swelling of the knee or other joints.
- (3) Bone Disease, producing curvature of the spine, or “hunch back” or “broken back.”
- (4) Disease of the Skin (Lupus).
- (5) Consumption of the Bowels, with long continued diarrhoea.
- (6) Brain Disease (Meningitis), or the brain fever of the infant.
- (7) The so-called scrofulous affections.
- (8) Enlarged and Diseased Glands (a large proportion of all cases).
- (9) Consumption of the Bladder, and other parts of the genito-urinary system.
- (10) Pleurisy (most of the cases).

Of all of these forms, there is, it is true, one which is much more common than any

of the others. This is the form which is often spoken of as Consumption, and once it has taken a firm hold it is comparatively easy of recognition even by those who know very little about the disease generally. In this form it is the most insidious, the most widespread, and the most dangerous of all diseases in this country.

In its various forms this disease destroys annually in Canada upwards of 10,000 human lives, while the figure for the United States is 150,000. Two-thirds of these are, moreover, carried off during the most productive and reproductive period, 20 to 40 years of age. And in addition it is estimated that in Canada alone some 50,000 are annually incapacitated for industrial usefulness, and thus become dependents either on their friends and relatives, or upon the State.

FOR THE DEVELOPMENT OF TUBERCULOSIS

two conditions are necessary, viz. :—(1) the presence of the disease germ, known as the tubercle bacillus, and (2) tissues of low vitality or constitutions with reduced power of resistance. These two conditions must be present in all cases, and without both of them acting together there can be no development of the disease.

The germs of the disease are minute vegetable micro-organisms, so small that it has been estimated that 500,000 of them could be placed side by side on one face of a five cent piece, and so numerous that upwards of seven billions of them are coughed up by the average tuberculous patient in 24 hours. These germs have remarkable powers of reproduction when planted in a favorable soil. They live and grow only in the animal organism, and their powers of life outside of living animal tissues are very feeble. They

are derived entirely from the discharges of tubercular sores, and as lung consumption is the most common form of the disease, the most prolific source of the organisms is the expectorated material from a diseased lung. This sputum or spit, as it is called, is practically the only medium through which tuberculosis can be transmitted from one person to another.

These germs gain an entrance into the body most readily through the mouth and nose during the act of breathing. Through the mouth, throat and nasal passages they are carried by the inspired air into the more distant parts of the air passages and finally into the lungs themselves. Here they lodge and all depends upon the vitality of the tissues or the resisting powers of the individual as to whether or not the disease develops. If the power of resistance is strong enough the germs can do no harm. If on the other hand the individual is weak and run-down, as we say, by overwork, worry, poor food, excesses of any kind, previous disease, or unhygienic methods of living, the germs grow and multiply, and by throwing out poisonous materials in their growth they produce the various symptoms which enable us to recognize the disease.

It is then in the first place the admission of the germs into the body which renders us liable to develop tuberculosis. And it is important to note that the danger arises from the careless and uncleanly habit, so common, of spitting upon sidewalks, roadways, floors, carpets, or mats, into dark corners, behind radiators or articles of furniture, in stores, warehouses, factories, shops, railway carriages, street cars, public halls, places of amusement, etc., all of which are being constantly contaminated by the sputum of consumptives. Once deposited it soon becomes dry and, in the form of a fine powder or dust, is blown about in the currents of the air to be inhaled by all whether they will or not. Microscopic examinations of the contents of the nasal cavities of a large number of attendants in cafes, theatres, departmental stores and other public places revealed the fact that in nearly 75 per cent. of them the germ of tuberculosis was present. And it is reasonable to suppose that nearly every individual has at some time in his life inhaled, without being aware of it, a certain number of these same bacilli.

All, however, do not contract the disease. Why? Because in all contagious diseases due to germ life, there is a second factor required in addition to the presence of the disease germ. There must be a suitable soil in which the germ may grow. This is present when there is tissue of low vitality or a constitution with a lessened power of resistance. And as a general rule it may be said that the lower the vitality of the tissue, the greater is the liability to the disease. This resisting power against disease is often lessened by (1) heredity; (2) residence in low, damp, and

badly drained localities, or in poorly lighted and badly ventilated houses; (3) occupations that necessitate the breathing of impure air and irritating dusts; (4) catarrhal affections of the respiratory tract and other diseases; (5) over-work; (6) underfeeding; (7) dissipation; (8) worry; (9) alcoholism.

And thus it is that while all are exposed to the invasion of the disease germ, all do not contract the disease. Those who are strong and vigorous, whose tissue vitality is high, and whose powers of resistance are up to the normal standard, need have no fear of the disease. And while it would be mere foolhardiness for any to unduly expose themselves, or to exhibit a reckless disregard of what are conceded to be but ordinary and reasonable precautions, the other extreme, which leads to an exaggerated fear both of consumption and of the consumptive, is just as much to be avoided.

And what of the theory that consumption is hereditary? It is readily disposed of, notwithstanding the fact that the majority of people so fondly cling to it. Paternal transmission is impossible, and while maternal transmission has been shown to be otherwise, the cases on record are so very few that this source of contagion may be disregarded. It has been frequently shown that no matter how far advanced the disease may have been in the parents, if the child was removed early and kept away from the parental home there has been no inheritance of tuberculosis. So that the so-called hereditary tuberculosis is entirely a matter of contact. Exposure to contagion takes place almost at birth, and is continued during infancy and childhood, and the children of tuberculous parents contract the disease in exactly the same manner as does any one else who is exposed to the contagion.

Tuberculosis then is a disease caused by a specific germ which has gained access to a tissue of low vitality. The germ may have been present in the system for years before the constitution became weakened to a sufficient extent to produce a favorable soil for the development of the disease. Usually the onset is insidious and no description of symptoms could be given that would be sufficiently adequate to enable the disease to be recognized by any but a physician. The point of importance is that any disturbance, such as indigestion, loss of appetite, nervousness, loss of sleep, weakness, loss of flesh, whether there be cough or any of the other usual symptoms or not, is worthy of careful attention, as it is by neglect of underlying conditions productive of such symptoms that the disease is allowed to gain a foothold.

Let the following axiom be remembered:
 No tubercle germ, no consumption;
 No favorable soil for the growth of
 the germ, no consumption.

What the White Man May Learn from the Indian

By GEORGE WHARTON JAMES

HIS first lesson is his love of out-of-doors. He lives out-of-doors and he thinks out-of-doors. He is spiritualized out-of-doors. He understands the storm movements better than most of our experts. To him the thunder is the voice of an angry God and the zephyr is God happy with man. There is no race in such natural sympathy with religion. The Indian lives religion.

He sleeps out-of-doors, and has done so for centuries, proving that his ancestors knew more about healthful habits than the palefaces, who have only now learned to cure the white plague by the same method. There is another thing about the Indian. He is not possessed of the notion that the nose is an organ of speech. He does not talk through his nose, but with mouth closed breathes through his nostrils. The Indian mother, though she does not know why, makes her baby keep its mouth closed. She will press the lips together, and if the baby continues to try to breathe through its mouth, she straps the jaws closed with rawhide, believing that if the baby cannot get its respiration through the nose, it had better die, because it will never be healthy and strong.

The Indian breathes deep. His is not chest respiration, but the breathing from the lower ribs. You and I have wondered that in a great theatre we could hear Sarah Bernhardt's whispers. I went to hear her, and saw that, as with the Indian women, her waist-line was indistinct. I forgot her art in watching her breathing. Her vocal chords are not stronger or her enunciation much clearer than that of others of the stage, but there is the great power of deep breathing—the bellows behind the voice—so that you can hear her whisper. Like the Indian, she breathes deep.

I have known an Indian to cover eighty miles on foot in a day, and he was seventy years old. I have known Indians to cover two hundred miles on horseback in a day.

How can they do it? They live in the open, sleep in the open, and are an out-of-door people. And, also, they teach the palefaces the further lesson that teeth were not given to men to dig their graves with, but actually to grind up their food, so that it might become the strength of their bodies.

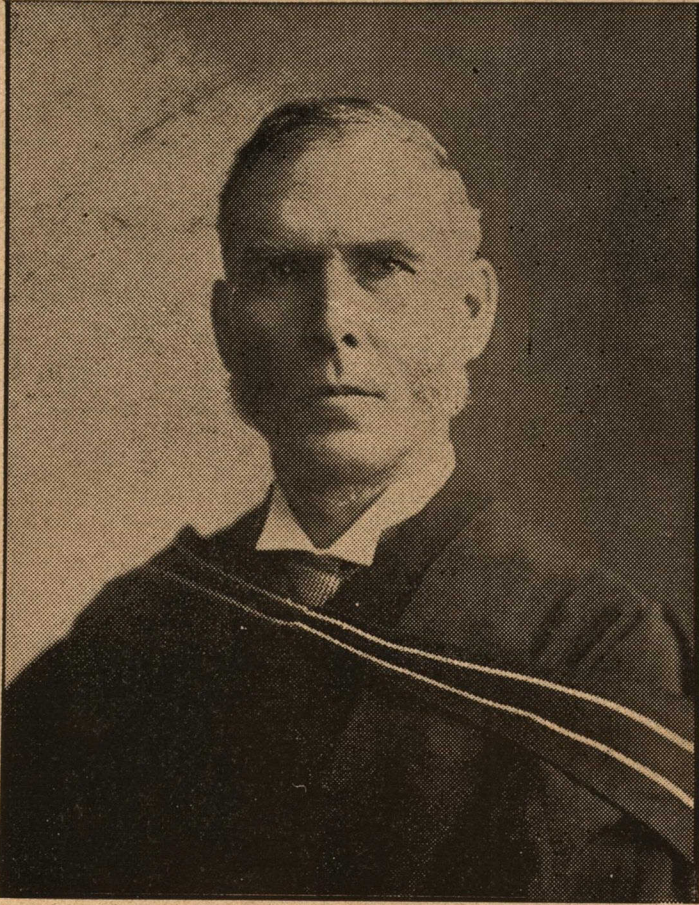
Now, I hope to live to be one hundred years old at least, as many of the Indians have done who did not come into too close contact with civilization. I believe I will live these years because I live their life. I live outdoors and sleep outdoors; I masticate my food, and I expose my body to the sun, believing, like the Indian, that the tanned face is the healthy face. I further try, like the Indian, to be thoroughly frank with my fellows, saying 'yes' when I mean it, and 'no' when that is the right answer. You can rely on the word of an Indian. He is your friend or your enemy, and he wants you to be sure that he is one or the other.

You talk a great deal about your civilization. Before Columbus came to America the Indians knew the art of shampooing. They take roots and make a fine lather with hot water. With this they rub the hair delightfully. An Indian woman once gave me a shampoo. She was a grandmother and the daughter of a chief. When she had lathered my head she proceeded to shampoo my beard. The operation had the other Indians in a fit of laughter.

The Indian laughs as merrily as a child and just as naturally as a child, unless the white man is about. Then he is solemn. All his evils he attributes to the paleface. Governments step in and take his lands and evict him, and it is not to be wondered at that he looks upon us as untrustworthy, while at the same time he is eager to give up his own life for the sake of a white man whom he trusts. He is the splendid, noble, original American, worthy of citizenship, with his heart open to the truth of Christianity, a ward of the nation to be protected.

If You Don't Want to "Get Consumption"

Don't live in rooms where there is *no fresh air*.
 Don't work in rooms where there is *no fresh air*.
 Don't sleep in rooms where there is *no fresh air*.
 Don't be afraid to keep your windows open day
 and night.



DR. R. A. REEVE, TORONTO.
President of the British Medical Association.

HOW CONSUMPTION SPREADS

Consumption is a disease which can be given by one person to another. The germs usually come from the spit of consumptives which dries and goes into the air as dust and is breathed in by others.

THEREFORE

Don't spit on the sidewalks or let others do it; it is against the law. Don't spit on the floors of your office, workshop, store, church, public halls, street cars or railroad cars.

When you spit, spit in the gutters or in a spittoon containing a liquid disinfecting solution.

British Medical Association

Success of the 74th Annual Meeting in Toronto—Great in Personality and Great in Numbers and Interest—The Treatment of Tuberculosis a Leading Subject of Consideration

AN event of the year of permanent interest and value, not alone to Toronto, but to all Canada, was the holding of the 74th Annual Meeting of the British Medical Association in Toronto, during the month of August. It can be said in a sentence that the great men of medicine the world over were here.

No need exists in a magazine article to list the many famous names, representing visitors in Toronto during the week, nor to particularize the many features that made up the programme of that memorable week.

Readers of CANADIAN OUTDOOR LIFE will be more particularly interested in what the British Medical Association did, so far as the subject of tuberculosis was concerned. This was one of the subjects discussed in the State Medicine Section, the meetings of which were open to the general public. Only the meetings of the State Medicine Section were thus open.

IMMUNITY OF ANIMALS

Dr. Samuel Dixon, Commissioner of Health, Harrisburg, Pa., presented the first paper. His topic was "The Prevention of Tuberculosis". He dealt with the progress made in the treatment of tuberculosis since the Association last met in Canada. Among other results determined by experiments was that the tubercular bacilli in animals are much more virulent than those of human origin. So far, however, science has not been able to discover any means of rendering animals immune permanently against the tubercule poison. In summing up the situation Dr. Dixon asserted that as a result of fifteen years' research it had been demonstrated that a degree of immunity can be produced in the lower animals. They had not been wholly successful, but a higher degree of immunity had been attained. The measure of success achieved was a stimulus to renewed energy and search for the active principle which can be used without danger upon the human anatomy to render it immune.

That scientific tests have shown that the seeds of pulmonary tuberculosis harbored within doors in the dried state are capable of retaining their effective vitality for prolonged periods of time.

That any method of procedure employed in inhabited buildings which causes dust to be disseminated must be considered as tending to spread the seeds of consumption.

That hotels, clubs, theatres, office buildings, schools, churches, and business establishments generally should be required by

law, to introduce and operate dustless methods of cleaning—this part of their mechanical equipment being held to be as necessary as provision similarly made for warming, ventilation, and for fire protection and fire escape; and the employment of dustless methods in private residences is urged as being equally imperative for the control and suppression of all forms of tuberculous disease.

WHAT PREVENTS WILL ALSO CURE

In the discussion which followed Dr. Probst urged the necessity of educating the public as one of the most effective methods of combating the spread of tuberculosis. He suggested an addition to every house by which the inmates might sleep in the open air for a certain period of the year; also that architects should pay greater attention to ventilation in designing houses.

Dr. Stevens gave an interesting statement of the campaign carried on successfully in the borough of Renfrew, Scotland, to educate the people in preventive hygiene.

Prof. Glaister of Glasgow University, while concurring in the value of fresh air treatment for tuberculosis, suggested that climatic conditions must necessarily govern the application of such treatment. He laid down the axiom that whatever conditions are preventive were also curative, and emphasized the opinion that dry dusting of furniture was a delusion. In connection with the dust of the streets Prof. Glaister said he noticed that in some cities in Canada the streets were either all dust or pools of water. People when retiring at night left their windows open, and if a wind rose during the night the dust was blown into the room and inhaled by them. That dust carried the germ from the sputum, and therein lay the danger. A large amount of tuberculosis was produced by conditions which were preventive. Another matter which required attention was the smoke nuisance, which he regretted to observe was prevalent in Canada, and which it was as necessary to get rid of as of dust, in order to give people's lungs an opportunity to resist tuberculosis.

USEFUL AND PRACTICAL

At the request of the President, Dr. J. Groves of Carisbrooke, Isle of Wight, spoke of the importance of day camps, one of the most useful and practical preventive means known. Every person suffering from consumption should be got under education, not necessarily in a sanitarium, but under medical supervision in a tent, with nurses in attendance conversant with the life that

ought to be lived by consumptives. When his education in this respect was completed he could be permitted to return to his home and become a missionary in the work of education.

Dr. Groves, who is a recognized authority on the subject, having been himself a sufferer for many years, was listened to with close attention as he told of his first trip to Canada when a young man in 1868 to seek relief from tuberculosis.

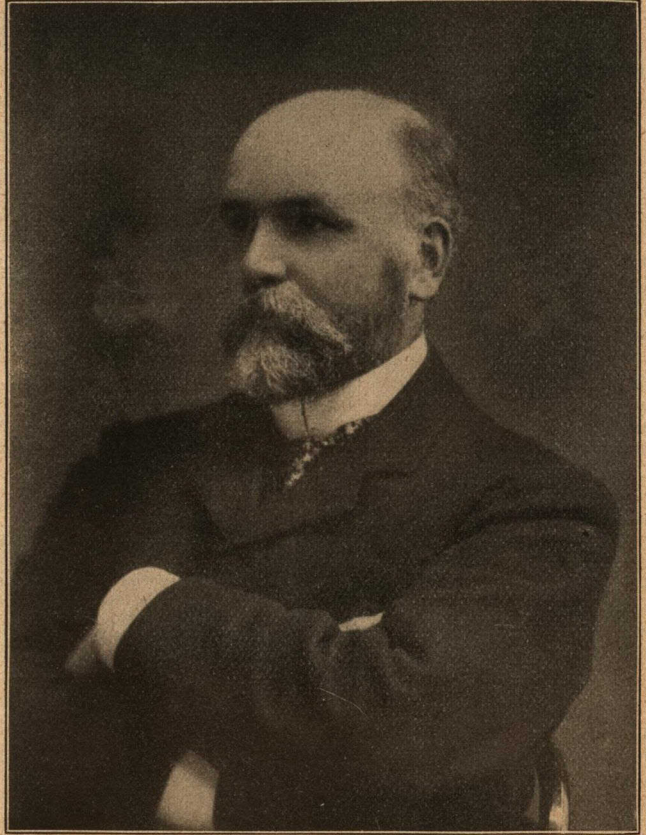
DOUBTFUL PHASES OF QUESTION

Dr. Probst, Secretary State Board of Health, Ohio, submitted a paper on "Some Doubtful Phases of the Tuberculosis Question," in which he made special reference to the necessity of educating the public upon this important subject. Millions of dollars had, he pointed out, been spent in the slaughter of cattle for the purpose of preventing the spread of tuberculosis to humanity. Would not that money have been better spent in some other manner? Dr. Probst thought it would. He recognized the danger of eating meat or drinking milk from a tuberculous animal, and regarded the disclosures in the Chicago packing house scandals as evidence of necessity for greater caution and inspection of the food supply.

Touching upon the influence of alcohol, Dr. Probst questioned whether it was productive of tuberculosis, and pointed out that there was a great difference between alcohol and alcoholism. The results of the latter differed according to the grade of society in which it prevailed. With regard to the treatment of patients the principle was conceded that patients could not have too much pure air, and that the air inside a room was never as pure as that outside. The majority of patients might, if properly protected, be permitted to sleep out of doors under all temperatures. Conditions and sanitarium should be constructed with that idea; at the same time it was not advisable to make such treatment obligatory.

DANGER LURKS IN DUST

A practical paper upon "Influence of Domestic Methods and Household Dust on Tuberculosis," by Dr. Geo. Heman, President



SIR JAMES BARR, M.D., F.R.C.P., F.R.S.

One of the distinguished delegates of the British Medical Association.

of St. Louis Medical Association, was read by the Secretary, in the absence of the author. Dr. Homan summarized his views upon the subject in the following suggested resolution:

"That efforts towards the eradication of human tuberculosis will fail which do not take full account of household dust as a factor in the dissemination of that disease."

FROM A CANADIAN STANDPOINT

Dr. Jas. Roberts, Medical Health Officer, Hamilton, Ont., based his paper upon the premises that consumption can be prevented that it can be eradicated, and that it can be cured. He estimated the number of sufferers in Canada at 40,000, and the loss sustained by the country annually from the ravages of the disease at \$8,000,000. He commended the provision made by the Provincial Government of Ontario for a grant of 40 per cent. of the cost of municipal sanitarium for consumptives, and remarked with some degree of pride that Hamilton was the only municipality that had so far taken advantage of the generous offer. To Nova Scotia

was given the credit of being the first Province in the Dominion to erect a Government sanitarium for consumptives. The suggestion was offered that the appointment of a Minister of Health was advisable in each Province. Touching upon the public fear which has been aroused regarding the impossibility of checking consumption, Dr. Roberts

characterized it as one of the most ludicrous and pitiable "bogies" which ever alarmed the public. The advantage of the hospital system of treatment, and the fact that the prevention of the disease was bound up in the solution of the great social and economic problems which are engaging the attention of the various nations, were emphasized by Dr. Roberts.

Facts About Man

THE average weight of an adult is 140 pounds. The average weight of a skeleton is about 14 pounds, and the number of bones is 240. The skeleton measures one inch less than the height of the living man. The average weight of the brain of a man is $3\frac{1}{2}$ pounds; of a woman, 2 pounds 11 ounces. The average number of teeth is 32.

The average height of an Englishman is 5 feet 9 inches; of a Frenchman, 5 feet 4 inches; and of a Belgian, 5 feet $6\frac{3}{4}$ inches. The average weight of an Englishman is 150 pounds, of a Frenchman 135 pounds, of a Belgian 140 pounds.

A man breathes about 20 times in a minute, or 1,200 times in an hour. He breathes about

18 pints of air a minute, or upwards of seven hogsheads a day. He gives off 4.08 per cent. carbonic acid gas of the air he respire.

The average of the pulse in infancy is 120 beats per minute; in manhood, 80; at 60 years of age it is 60. The pulse beats of females are more rapid than of males.

The weight of the circulating blood is about 23 pounds. The heart makes four beats while we breathe once. Five hundred and forty pounds, or one hogshead, of blood pass through the heart in one hour. One thousand ounces of blood pass through the kidneys in one hour.

The lungs of a man have 174,000,000 cells, which would cover a surface thirty times greater than the human body.

Fresh Air as a Cure for Colds

A WRITER in the British Medical Journal declares that there is a good deal of mystery in connection with the "common cold," and makes the following observations which he says are based on a study of the subject extending over three or four years:

1. "Colds" are always infectious. The source of infection can be discovered in more than ninety per cent. of cases.

2. The period of incubation is usually less than twenty-four hours and almost always less than forty-eight hours. Only very rarely is it as much as four or five days. Possibly these differences in the period of incubation may be caused by a variation of micro-organisms in different cases.

3. The infection must be fairly concentrated, as in a badly ventilated room, church, or railway carriage, and must be continued

for some time (twenty minutes or half an hour).

4. Whether a person be hot or cold, wet or dry, does not at all influence his liability of becoming infected. The important point is the dose of the infection.

As for treatment, the best that can be done for a patient is to place him in the open air or in a room with a good draught. The reason, apart from the obvious improvement in general health resulting from such a force is that a "cold" is a disease in which a patient reinfects himself again and again if shut in the confined space of an ordinary living room.

The best means of prevention follow as a corollary to these facts: Never sit in a room that is not thoroughly ventilated, and avoid especially any room occupied by a patient suffering from a "cold."

Weather Proverbs

If on Candlemas day (February 2nd) it is bright and clear, the ground-hog will stay in his den, thus indicating that more snow and cold is to come; but if it snows or rains he will creep out, as the winter is ended.

* * *

If Candlemas day be fair and bright,
Winter will have another flight;

But if Candlemas day bring clouds and rain,
Winter is gone and won't come again.

* * *

On Candlemas day the bear, badger, or woodchuck comes out to see his shadow at noon; if he does not see it he remains out; but if he does see it he goes back to his hole for six weeks, and cold weather continues for six weeks longer.

How to Be Comfortable Sitting Out in Winter

HERE are, no doubt, many who will say at once that such a thing as being comfortable while sitting out in winter is an impossibility. It may be for some who lack the will to make the attempt but this must be confined mostly to those who do not care to get well.

The only inducement that needs to be offered to anyone sick from tuberculosis to do such a thing is that no proof is lacking that sitting out of doors "in the winter" is the thing of all others that does most to effect a cure. It is said to do twice as much good as sitting out for the same length of time in summer.

The greater benefit derived from winter sitting out has several explanations. First, with the ground covered with snow, there is little chance of the air being impregnated with the irritating dust of summer. Second, the warm air of summer by preventing rapid radiation from that great neglected breathing surface of the body, the skin, submits the body to severe poisoning influences of substances that ought to be excreted. Possibly the heat generated by the body is one of the most harmful of retentions of this sort. The result of this retention is a condition of nervous tension and consequent vitalexhaustion. Third, as Dr. Burney Yeo has written, the higher daily variations in temperature of winter are conducive to the highest development of the vital forces necessary to combat disease.

Far beyond all these attempts at explanation, however, there stand the facts and figures incontrovertible that patients who are faithful in sitting out get well far more quickly in winter than in summer.

This being so it behooves us all to make the best of it, and to be as comfortable as possible, which really means very comfortable if we take the proper precautions.

It means a daily battle for many, but for those who accomplish eight or ten hours a day in the open air, there is the battle won, the feeling of pride in a day's duty well done, and the opportunity for some to boast about it, all of which are, in themselves, sources of satisfaction.

There comes in here too the duty to your neighbor, who probably suffers as much if not more than you do. Let him see you faithful and he will be more faithful himself. Perhaps nowhere does the influence of good or bad example show itself more plainly than in sanatoria reserved for the care of those suffering from tuberculosis.

There is no use disguising the fact that it is a great deal harder to sit out in winter than in summer, and while many do it with a fair amount of pleasure for a certain number of hours daily, others find it very irksome. Many of these latter find it so, often

because they do not take the proper precautions against the cold. And since it has the great ultimatum of getting well, and is for this reason a necessity, every effort should be made to keep as comfortable and as warm as possible.

SHELTER.

The most important thing is to find a sheltered spot, where one is protected from wind and snow. Wind has a more cooling effect on the body than a still atmosphere thirty or forty degrees lower in temperature. For a patient resting outdoors, then, shelter



SLEEPING OUT GARB, LATEST STYLE.

from strong wind is essential. In most sanatoriums the porches on which patients rest are protected by glass screens. Glass screens are probably the best, as sunshine is admitted. Where there are no glass screens there should be canvas or some sort of a wind shield. A revolving shed or shack, enclosed on three sides, is probably the most satisfactory protection from the wind. For many who cannot afford such a shed, one, or better two, movable wooden or canvas screens are often all that is necessary. The sheltered porch should be so arranged that it can receive the direct sunshine all day long. To protect the head from direct sunshine, a small roller window shade can be attached to the base of the window-shield sash and raised whenever necessary.

PORCHES

Persons living in a health resort are often struck with the inconsistencies of the new arrivals. Every attention is paid to the selection of a room. It must be comfortable, well warmed and provided with several easy chairs. So far, so good, but in many cases this ends the matter and porch-room and comfort out-of-doors receives scant, if any, attention. The foolishness of neglecting to select a comfortable spot where you must spend eight to ten hours every day needs only to be mentioned to be recognized. Choose your quarters without forgetting that where you want most comfort is out-of-doors. Having settled upon a suitable place immediately (do not postpone this for two or three months because you expect to go home "in a few weeks") lay plans for your comfort out-of-doors. Expend all you can afford to make yourself comfortable, and omit no details within your financial resources.

CHAIRS

Next in importance comes the choice of a suitable chair. Many varieties, both in style and price, are on the market. The "Dettweiler" and "Adirondack Recliner" are probably the most comfortable, though somewhat expensive. They each have adjustable backs and when upholstered are very warm. The ordinary steamer chair, with an extended foot rest and a book rack, is an excellent chair, but the back is immovable.

Two excellent cheap chairs have been put upon the market in the last few years. They consist of canvas stretched upon a wooden frame. One of these is self adjusting, and while, sitting in it you can change it to any angle from an upright to a reclining position. A chair similar to this is made with an iron frame work, which makes it more expensive but more durable.

TABLE

It is important to the comfort of the patient to have a table handy on which to keep books, writing material, etc. An adjustable table, the top of which a patient can swing in front of, or away from him at will, is

preferable. If possible also have a small bookcase within reach. A book rest such as are used on Morris chairs can be attached to the table or chair. A book rest permits the hands to be under the rug and hence much warmer.

COVERINGS FOR CHAIR

One very important thing to be remembered is that all the warm air that rises from the body is replaced by cold air from below. This applies to beds as well as to couches and chairs. The only way to prevent the cold current of air from below is to cover the chair first with some material impervious to air. A fur rug is by far the best thing for this purpose, but for those who have not the means of obtaining such, several layers of newspaper will answer just as well. It will be a surprise to many to find what a difference such a simple covering makes. On top of this layer of paper, if such is used, a mattress or its equivalent lends remarkably to warmth and comfort. The fur rug, if used, may be spread on top of the mattress.

CLOTHING

The clothing should be light in weight and porous, but sufficiently warm. For underclothing, garments of wool mixed with cotton are probably the best as they are not costly and in most cases they give sufficient warmth. However, linen mesh underwear has found favor with many persons of like. While the clothing and underclothing should not be too heavy, heavy wraps should be used.

Learn to abandon chest protectors and other swaddling clothes. Anything that bundles up the chest and neck is bad. A chamois vest that can be easily removed is



TAKING THE CURE IN WINTER AT MUSKOKA FREE HOSPITAL FOR CONSUMPTIVES

permissible in some cases, but as a rule it is best to get along without them. The best sweaters are those in the form of Cardigan jackets that can be laid aside should the temperature rise considerably during the day.

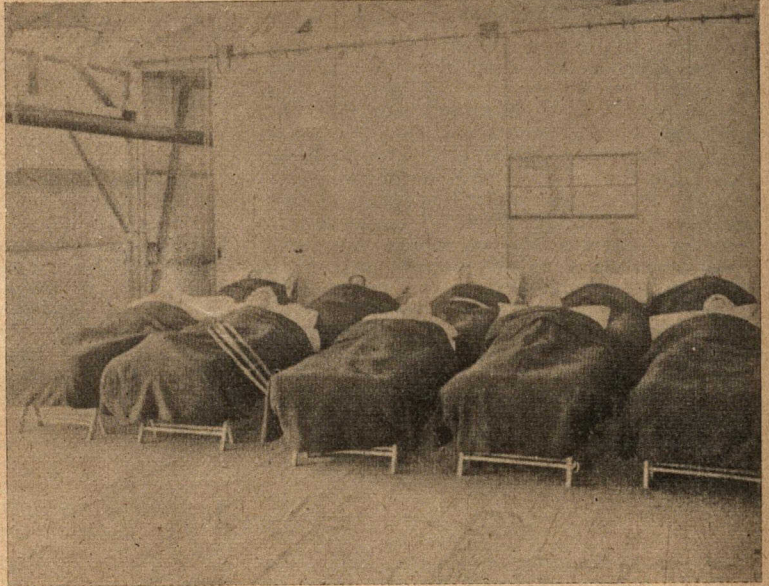
When "sitting out" every patient should wear a fur coat that comes down well below the knees. Owing to the great demand for fur coats, the popular "coonskin" has risen greatly in price and many substitutes have been placed upon the market. However, the majority of "sitters-out" will find no coat of sufficient warmth unless it is made of skin or some impervious material. Every coat should have a high collar, covering the ears and have wind guards in the sleeves. A sash tied snugly about the waist adds greatly to the warmth of the coat. Such sashes are widely worn in Canada, and are usually of a bright color, red chiefly. A short leather jacket lined with lamb's wool is an admirable covering while walking, as members of either sex should not walk in long fur coats.

THE HANDS

In all but the coldest weather, outdoor life need not necessarily interfere with the use of the hands in writing, reading or playing games. At least, the hands can be kept comfortably warm until ink flowing from a fountain pen in actual use freezes at the point.

During four winters the writer has found considerable hand work not only possible but also quite pleasant while using a somewhat unusual protection. This consists of, first, a thin, easily fitting cotton (summer) glove which allows perfectly free movement of the fingers, and, second, a warm mitt worn over the glove.

A mitt is not a mitten, but a fingerless and thumbless glove, or a glove with fingers and thumb which are tipless and so short as to cover only the basis of the fingers and thumb of the hand. In its simplest form it may be a long wristlet reaching from well up the wrist down nearly to one-third of the length of the fingers. Through this wristlet at the proper distance from the finger end is left a hole for the thumb. The wristlet is knitted



INTERIOR OF SHACK, CHILDREN'S HOSPITAL, BOSTON.

or crocheted of worsted. The simplest form is improved by knitting at the thumb hole a short covering for the base of the thumb.

The making of such mitts might furnish profitable employment for some patient of whom other patients would gladly buy so soon as the convenience and comfort of the thin glove and warm mitt, worn together in a patient's winter outdoor life, are known and appreciated. This is the more true because such mitts are not to be found, so far as the writer knows, in the American market.

In a temperature of twenty or thirty degrees below zero the ordinary mitten, with thumb, or fur-lined gloves may be found necessary.

For driving, mittens will be found to give by far the greatest warmth. All gloves or mittens should be large and loose, not tight or binding at any part. Gloves with tight wristbands may be the cause of much discomfort, but long, loose wristbands covering for some distance the sleeves are very satisfactory. In nothing should more care be exercised than in the choice of gloves and mittens. With the exception noted previously, they should always be of fur or pure wool.

THE FEET

While sitting still out-of-doors no part of the body suffers more severely than the feet. If you wish to be thoroughly comfortable, pay especial attention to your footwear. Woolen stockings are almost absolutely necessary, though in some cases a pair of thin cotton stockings under the woolen gives the most comfort. As many as five pairs of

stockings have been worn, but, it may be added, with little if any additional comfort to the wearer.

The shoes should be roomy and never tight. Shoes tight about the ankles have the same effect upon the feet as gloves with tight wristbands upon the hands. Many are very comfortable with ordinary leather shoes with a pliable sole, if rubbers or arctics are worn over them. Others will need felt shoes extending well up the ankles, or some may find the most comfort in soft moccasins, with a leather sole or insole. While walking, both felt shoes and moccasins have to be protected whenever the snow is melting or damp. "Snow-packs" (water-proof moccasins) are very satisfactory on damp days.

Foot-muffs are best made with the back extending the length of the chair. The front piece should extend about half way to the thighs. They may be made of quilted material being stuffed with cotton and several layers of newspapers or with wool. For men, the lower part may be sewed up like a bag. For women, the front piece may be slit and fastened after overlapping by "frogs" and loops. These muffs may be made of fur robes. Those of fur sold for automobiles are ideal. The front is open at the side and held in place by spring half hoops.

Foot-muffs are far better than heated "soap-stones" (slabs of this stone) or hot water bottles. Heated bricks, wrapped in cloths or paper, can also be used and Japanese foot-stones may be necessary for some. However, all such things as "soap-stones," hot water bottles, etc., in many cases seem to cause chilblains and should be avoided when possible.

Leggings of leather for men, over the trousers, and of wool for women, give great protection and warmth. These are much more convenient than "Pontiacs"—thick felt boots reaching to the knee—but hardly so warm. Rubber covering of some sort must be worn with Pontiacs, but this combination is undesirable because it produces excessive perspiration of the feet.

HEAD AND EARS

Many "sitters-out" find they can do with little covering for the head, provided their coat collars are sufficiently high. An ordinary cap or tam-o-shanter, is all that many find necessary while sitting on a protected veranda. However, some need much more and for these caps of all variety are in the market. A good cap is one that can be used to cover the ears and affords some protection from flying snow and glare of the sun to the

eyes. The material may be cloth, plush or fur as you wish or feel you can afford. A toque, a long knitted woolen, elastic, conical bag, with a tassel, is very comfortable, and with many is the favorite covering for the head.

WRAPPING UP

Many devices have been offered to enable the "sitter-out" to keep warm, and rugs of various kinds of material have been used. Fur is by far the best, but it is the most expensive. At any rate, everyone should have two rugs or a sleeping bag and one rug. Steamer rugs are good, but expensive, and if it came to a choice between one steamer rug and two horse blankets, the two blankets would be preferable. In purchasing rugs and horse blankets one should see that they are sufficiently large, say five by six feet. Ordinary blankets or quilts may answer when rugs or horse blankets are unobtainable.

Sleeping bags, already mentioned, are made of some warm material, well padded. They encase the lower limbs and come well up on the body, affording very good protection against the cold. They are highly recommended by those who have used them.

It is practically impossible, in a written article, to teach one of the best methods of using wraps. Much must be necessarily left to the invention, taste and available articles of the individual "sitter-out." The following, however, may help:

Spread the rug on the reclining chair. After sitting down grasp the part of the rug lying on the right of the chair and with a quick motion throw it over the knees and feet and tuck it well under the legs. Then do the same with the part of the rug on the other side, but leave the edge free. Now grasp the edge of the rug lying on the right side and pull it up hand over hand until the end which was lying free beyond the feet is reached. Then pull up the far ends of the rug, taking care to uncover as little as possible of the legs, and tuck both sides under the knees. This will give three or four layers of rug over most of the legs, but only one over the feet. It forms, however, a bag out of the rug and no air can enter. A second rug, folded and thrown over the first, makes such a covering that the coldest weather can be defied.

If these general principles are followed the winter cure will not be so terrible, but one must always keep before one's mind the great goal of getting well which such a course brings nearer to him than anything else.

Journal of Out-door Life.

GOD ALMIGHTY FIRST PLANTED A GARDEN.—BACON.

CANADIAN OUT-DOOR LIFE.

PUBLISHED MONTHLY BY THE NATIONAL SANITARIUM ASSOCIATION OF CANADA FROM THEIR OFFICES, 28 ADELAIDE STREET W. (SATURDAY NIGHT BUILDING), TORONTO, CAN.

A MAGAZINE devoted to the gospel of out-door life in the treatment of tuberculosis and the value of fresh air and hygienic living for everyone.

SUBSCRIPTION PRICE, \$1.00 a year to any point in Canada, United States or within the postal union. Single copies, 10 cents.

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ADDRESS ALL COMMUNICATIONS, business and editorial, to J. S. ROBERTSON, *Secretary National Sanitarium Association and Manager "Canadian Out-door Life,"*

28 ADELAIDE ST. WEST (Saturday Night Building)

TORONTO, CAN.

OURSELVES

CANADIAN OUT-DOOR LIFE has a mission, and this is its best introduction to a reading public.

Edward Everett Hale, now drawing near to the end of a century of life, attributes his long years and vigorous old manhood to the fact that he has ever lived much in the open. "I spend all the time I can," he has said, "in the open air."

Life in the open is not alone a great panacea for keeping the healthy healthy, but experience has fully demonstrated that it is also a great curative agent for those who are weak and sickly.

The dread white plague—that more than all other diseases and as much as many others—finds its Waterloo in abundance of fresh air.

CANADIAN OUT DOOR LIFE is published that it may give wings to the gospel of fresh air, God's own curative agent for conquering tuberculosis and for giving to mankind the real glow and vigor of health.

This journal will be practical in its teachings. Information that will teach men and women how to live healthy lives will be found within its pages. Methods open to the masses generally to fight the white plague will form an important part of its contents always.

In its pages will be found articles from leading medical men and laymen, who have given close study to these questions. It will not in any sense be a technical journal, whilst giving technical information. It will be a magazine for the masses.

This is our bow.

REMEMBER

(a) Consumption is not inherited. It does not belong to our climate. It is on the decrease.

(b) *No spit, no consumption.*

(c) No new cases of consumption can rise except from old ones.

(d) *The careful consumptive is not dangerous to those with whom he lives.*

THE TUBERCULOSIS EXHIBITION

IT is not too late to comment on the Tuberculosis Exhibition, that was held in the new Science Building, Toronto, during the closing ten days of the month of August.

To the National Sanitarium Association of Canada must be given credit for bringing this exhibit to Toronto. It opened the same week as the British Medical Association, and probably, to some extent, this is where confusion has arisen, and at times, the credit of placing the exhibition was given to the British Medical Association. But this is a mistake. The initiative was taken directly by the National Sanitarium Association, and all the management and expense borne by them.

Thirteen thousand people visited the exhibition during its stay in Toronto. Upwards of twenty-five meetings were held, and more

than that number of addresses and talks delivered at the afternoon and evening sessions. The value of these can hardly be over-estimated.

The Exhibit itself consisted of rather more than one hundred individual exhibits from sanatoria in all parts of United States and Canada, and contributions in the way of work, shown by the charts and models from many different organizations, that, in one way and another, are battling with the dread white plague.

It is gratifying to know that the success of the exhibition was such, that the Ontario Government are now planning to duplicate the exhibit to a large extent and place it in various towns and cities throughout the Province, in order to direct attention to the importance of the fight against consumption.

CONSUMPTIVE EMIGRANTS

THERE is no getting away from the fact, that in the large influx of emigrants from the older countries into Canada during the past two years, a considerable percentage afflicted with tuberculosis are being admitted.

Some few months since, the relief officer of Toronto entered his protest against the number of sick people, recently arriving in this country, who were seeking assistance from the city. Those having charge of the sanatoria for consumptives, both at Toronto and in Muskoka, are meeting many who have come out to this country, well seized with this disease. What system of examination has been pursued it is hard to conceive. Both at the hospital on the Humber and at Muskoka, there are constantly being taken

in, as a matter of charity, patients, who should have never been allowed to leave the mother-land. In not a few cases, those making application have had the disease well-advanced, and until such time as the disease finally conquers, they cannot be other than a charge on the charity of the country.

In conversation with medical men and those who have charge of our hospitals—for the same trouble exists in different parts of the country—there is a united opinion that if the Dominion Government does not take steps to prevent the occurrence of this trouble in other years, then it will become necessary for some one else to move in the matter and see that amendments to our emigration laws are secured.

Consumption is a Germ Disease.

The Germ of Consumption is in the Sputum.

The Proper Care of the Sputum means a Decrease in Consumption.

Good Food, Fresh Air and Rest are the Best Cures for Consumption.

Sunlight Destroys the Consumption Germ.

The Combat Against Tuberculosis*

J. H. ELLIOTT, M.B., Physician-in-Charge, Muskoka Cottage Sanatorium, Gravenhurst, Ontario.

THE various addresses which have been given during the course of this Tuberculosis Exposition have covered many of the aspects of the disease, its causation, dissemination and the treatment of it in its various forms.

When asked to outline the work which we are doing in Canada to combat the disease, I thought it might be of interest to incorporate as well a few notes as to the knowledge of the disease possessed by physicians centuries ago, and at the same time to make some mention of the work which has been done in other countries in the development of the present day crusade against tuberculosis in its various forms.

At no time in the history of the world has there been as much done in the treatment of those suffering with the various forms of consumption, nor has there ever been as much public interest taken in the disease.

We know to-day that pulmonary tuberculosis is curable, particularly in its earlier stages, and though this has only been accepted generally within a very few years, we have but to pick up the writings of Hippocrates (460 B.C. to 377 B.C.) to find that he taught his students that if patients with consumption were treated from the first they will get well. The father of medicine had a wonderful knowledge of the disease. He described the form of chest in phthisis and gave us our first ideas on judicious exercise and the rest cure.

HISTORY OF TUBERCULOSIS

Isocrates, a contemporary of Hippocrates, taught that consumption was contagious, but this expressed belief of his was not generally accepted.

Aræteus, who lived 250 years before Christ, prescribed for his patients sea voyages, moderate exercise and friction. He also laid stress on a generous milk diet.

Pliny (72-22 B.C.) taught the great value of sunshine and fresh air. He sent his patients into the pine forests. One of his most noted maxims was "Where sunshine enters, disease departs."

Celsus (30 B.C.-50 A.D.) advised for his patients a change of air and sent his patients to the country or on sea voyages.

Galen too, who lived from 131-200 A.D., believed that impure air was an etiological factor and taught that the disease was contagious. He sent his patients to the higher altitudes that they might breathe pure fresh air.

The first records of cured cases are perhaps found in the writings of Avicenna, a physician of the Arabian school who flourished

980-1037 A.D. He, too, believed in contagion and sent many of his patients to the pure air of the mountains.

The first accurate description of the tubercles found in the lungs in phthisis, we find in the writings of Franciscus Sylvius, 1614-1672, and in 1672 Gideon Harvey published a work with most excellent plates illustrating them.

Scrofula, which was later recognized as a form of tuberculosis, received great attention from physicians in the seventeenth century. It was known as the King's Evil, and the belief was general that the disease would be relieved or cured could the patient be touched by a king. John Brown, in one of his writings, records that in twenty-two years (from 1660-1682) 92,107 persons were touched by the king for this complaint.

Sydenham (1624-1689), the father of English medicine, advised riding in the treatment of consumption. This was his favorite treatment for many other diseases. He records a number of cures which he thoroughly believes were due to horseback exercise.

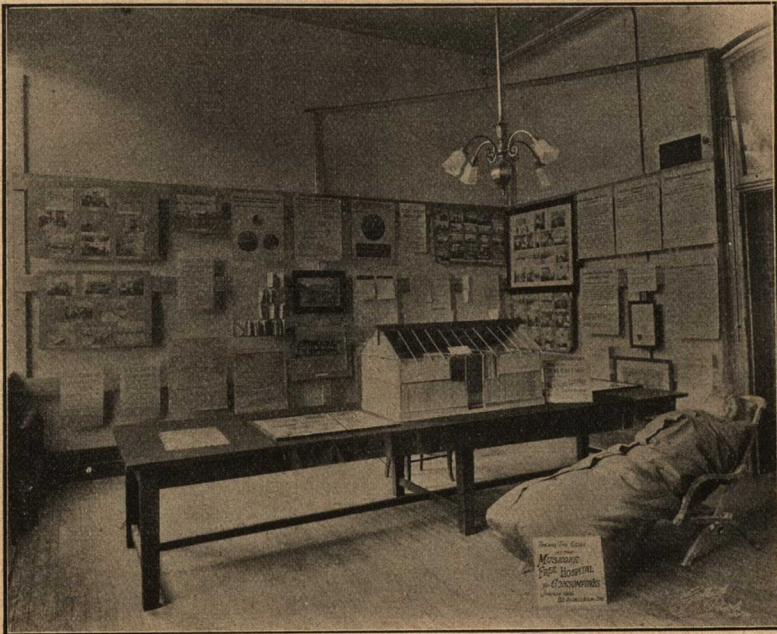
Richard Morton in 1689 declared the identity of scrofula and consumption and was the first English writer to lay stress upon contagion.

Great advances in the recognition of the disease were made by the Paris physicians Laennec and Louis. Laennec it was who first taught the use of the stethoscope, and through his careful researches diagnosis was simplified. His work on auscultation, first published in 1819, is a classic. The first accurate description of the histology of tubercle was given by an English physician, Addison, in 1845, in a communication to Guy's Physical Society.

NOT SUPPOSED TO BE COMMUNICABLE

During these earlier years there was no general belief in the communicability of the disease. Kortuun, in 1789, tried inoculation experiments by rubbing tubercular matter on the unbroken skin, but it was unsuccessful. That the disease is communicable was first proven by the brilliant researches of Villemin, who in 1865 published a report of his experiments. His conclusions were not generally accepted, though they were incontrovertible. Koch however, in 1882, compelled the world to acknowledge that tuberculosis was a specific infectious disease, when he made his memorable communication announcing the discovery of the tubercle bacillus, and showed that in all cases it was the causative factor. He showed that this bacillus could always be found in the sputum of

* Extracted from an address given at Tuberculosis Exhibition, Toronto, Aug. 29th, 1906.



VIEW OF CANADIAN EXHIBIT, TUBERCULOSIS EXHIBITION, TORONTO, AUGUST, 1906,
HELD UNDER DIRECTION NATIONAL SANITARIUM ASSOCIATION OF CANADA.

patients suffering with consumption and that from the sputum the disease could be communicated to others.

EARLY HOSPITALS FOR TREATMENT OF TUBERCULOSIS

The first special hospitals for the treatment of scrofula and tuberculosis were erected in England. The Royal Sea Bathing Infirmiry in Kent County was founded in 1791. It has 220 beds. The first hospital devoted exclusively to tuberculosis of the lungs was the Royal Hospital for Diseases of the Chest, City Road, London, which was founded in 1814. The Brompton Hospital for Consumptives was built in 1841. Since this date many other special institutions have been built, England surpassing all other countries in the number of special hospitals for diseases of the chest.

The modern sanatorium treatment of tuberculosis has been brought to the greatest development in Germany, though the first effort to sanatorium work must be ascribed to Dr. Bodington, of Sutton Coldfield, Warwickshire. He gave his patients a generous diet, in which meat, eggs, farinaceous foods and milk all found a place. He exercised a strict supervision over his patients, which is the key-note of the success of sanatorium treatment of to-day.

In Germany, Niemyer, in 1858, taught that phthical patients should have abundant and appropriate food, urging a free use of milk. He advised a constant out-of-door

life and sent his patients during the winter to places where they could spend the greater part of each day in the open air, and laid special stress on patients being under strict medical supervision.

THE FIRST SANATORIUM

The first sanatorium in Germany was built by Dr. Brehmer at Goerbersdorf in 1859. He was convinced from observations made as a student in the mortuary room, that phthisis often underwent arrest, and at his graduation wrote his thesis on the curability of tuberculosis in its earlier stages. This sanatorium is still in existence and is one of the largest in Germany. One of his earlier patients and later assistant, was Dr. Dettweiler, who, after his recovery opened a sanatorium at Falkenstein, near Frankfort on the Maine. He was enabled to open this sanatorium through interesting a number of Frankfort merchants. This was a sanatorium for paying patients, but it was understood that the incorporators were at no time to receive more than 5% interest on their investment. All profits over this were to be devoted to the establishment and maintenance of a sanatorium for the poor. In 1892 this was built at Ruppertshein, and provision has been made for over 100 patients. The work which Dr. Brehmer and Dr. Dettweiler began in Germany has increased until there are now over 100 sanatoriums in the Empire.

SANATORIUMS AND LIFE INSURANCE

One of the most interesting aspects of German sanatorium work is their relation to workmen's insurance associations. There is in Germany compulsory workmen's insurance. Any workman developing incipient pulmonary tuberculosis is sent to one of these sanatoriums at the expense of the Company in which he is insured, the Company finding it a better investment to send its policy holders to a sanatorium for a few months treatment and having him return to pay premiums for the rest of his life than to be under the necessity of paying sick benefits through a chronic illness as well as paying the amount of his life insurance to his heirs.

The first sanatorium for the treatment of tuberculosis in the United States was in the Adirondack Cottage Sanatorium founded by Dr. Trudeau at Saranac Lake 22 years ago. To-day the number of sanatoriums in the United States is rapidly increasing and a number of the States are building sanatoriums for the treatment of their own citizens. The first State Sanatorium was built in Massachusetts and now has over 350 beds.

THE START IN CANADA

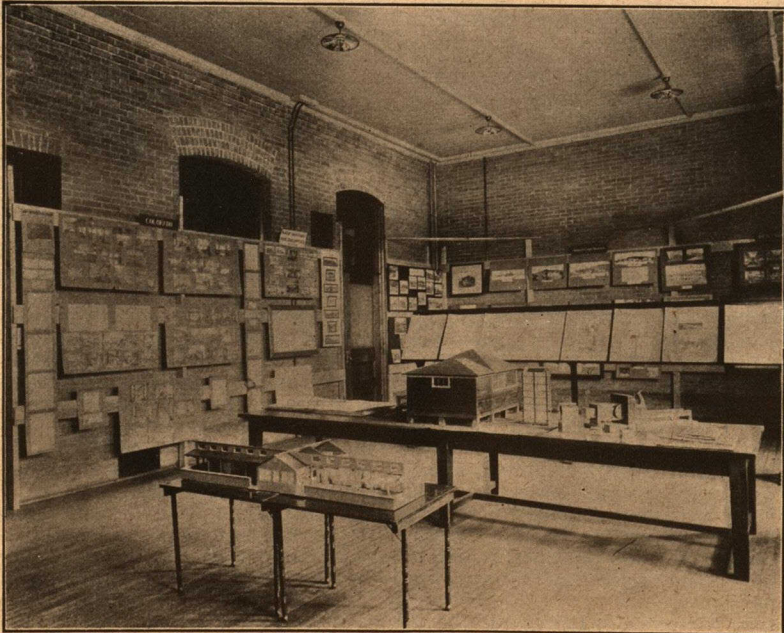
In Canada the first organized effort to combat tuberculosis was in 1896, when the National Sanitarium Association was formed. In the following year this Association opened the Muskoka Cottage Sanatorium, the first

sanatorium in Canada for the treatment of pulmonary tuberculosis. This has now 85 beds. Five years later the Muskoka Free Hospital for Consumptives was built by the Association and this Sanatorium can now accommodate 75 patients. Both of these sanatoriums are for the treatment of patients in the earlier stages of consumption.

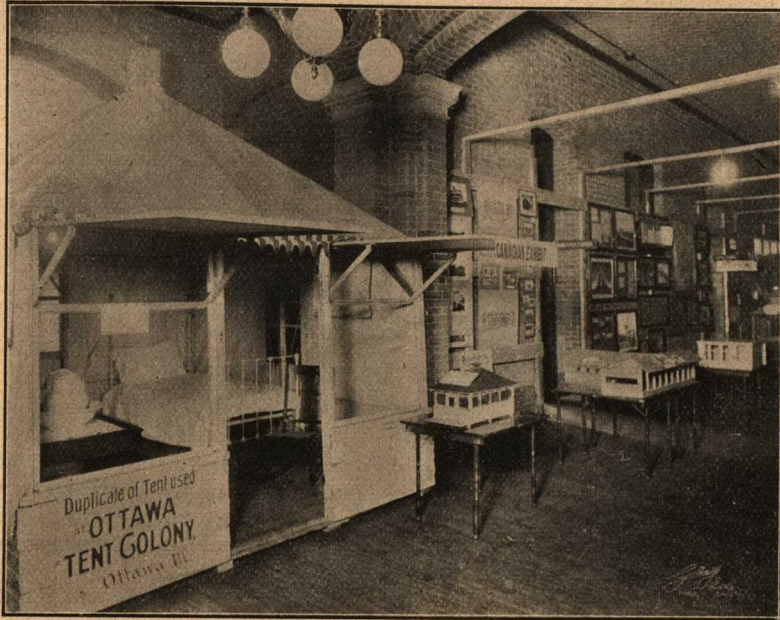
An affiliated Association, the Toronto Free Hospital for Consumptives, has at Weston a Sanatorium for the poor of the city of Toronto, with over 50 beds.

To make the work of these associations complete, there is now in building at Weston, cottages and other accommodation, to provide for the reception and treatment of patients in the advanced stages of consumption from any part of Canada. There will be private wards for those who are able to pay, while the indigent and those who are able to pay only in part towards maintenance will also be accepted.

Thus the provision made by the National Sanitarium Association of Canada and its affiliated Association is practically complete, for in a short time it will be able to arrange for the admission and treatment of any patient in any stage of consumption. Up to the present time the Association has erected no institutions outside the Province of Ontario, though such a step is contemplated. Its work however is national in its scope and patients are accepted from any part of the Dominion. The Association is



VIEW CANADIAN TUBERCULOSIS EXHIBITION, UNDER DIRECTION NATIONAL SANITARIUM ASSOCIATION, TAKEN FROM WEST CORNER.



CANADIAN TUBERCULOSIS EXHIBITION—VIEW OF ONE OF THE ROOMS IN NEW SCIENCE BUILDING SHOWING EXHIBITS OF VARIOUS STATES OF AMERICAN UNION.

endeavoring also to carry on an educational campaign and 32 local branches have been formed in various towns and cities. The object of these local associations is to awaken interest in the subject of the prevention of tuberculosis, to make known the work of the association and to secure assistance in the maintenance of beds in the free wards.

VARIOUS AGENCIES IN CANADA

Other agencies are also at work in the Dominion. The Canadian Association for the Prevention of Tuberculosis, has been carrying on an educational campaign with public meetings and the establishment of local branches in a number of cities and towns in the Dominion. In Montreal a League has been formed to undertake the care of the tuberculous poor. Visiting nurses see the patients in their homes and do everything in their power to provide them with comforts and necessities. Where possible the League sends patients away to a sanatorium. It has also a dispensary for the examination and treatment of patients who are able to attend. Through the efforts of the League a by-law has been passed to prevent spitting on the sidewalks. In the three years of its existence the League has dealt with about 790 cases of tuberculosis, some of whom have received continuous care and assistance for many months.

In the city of Hamilton, the Hamilton Health Association have established a sanatorium on the Mountain for the care of

patients from the city of Hamilton and the county of Wentworth.

The Federal and Provincial Legislatures have not as yet shown that interest in the subject of the prevention and treatment of consumption that the importance of the question demands. The Federal Government has done practically nothing. Nova Scotia has built a provincial sanatorium with accommodation for about 25 patients. Initial outlay \$20,000. Annual grant \$9,000. The province of Quebec has given two grants of land for sanatorium purposes, but nothing further has been done. Deputations have waited upon the provincial governments in New Brunswick, Manitoba and British Columbia, urging the establishment of provincial sanatoriums. The Province of Ontario has enacted legislation providing for a grant, up to \$4,000, of 20% of the cost of any sanatorium erected by the municipalities in the province. It also gives a special grant of \$1.50 per week for all public ward patients in sanatoriums in the province. Last year, to assist the National Sanitarium Association in its work at the Muskoka Free Hospital for Consumptives a special grant of \$15,000 was made, an assurance of the satisfaction felt by the legislature in the work the Association is doing.

The Tuberculosis Exhibition which was brought together in New York last December by the National Association for the Study and Prevention of Tuberculosis (U.S. A.) and the Tuberculosis Committee of the

Charity Organization Society in New York is now in this building. It has been in a number of the larger cities of the United States and has now been brought to Canada by the National Sanitarium Association to aid in the spread of knowledge concerning the causation, prevention and treatment of this disease. The work of this and similar Associations requires the hearty co-operation of every citizen. Were all our citizens able to hear the various addresses which have been given during the course of this exhibition there would be much less difficulty in securing the necessary legislation from our municipalities, our provincial legislatures

and our Dominion Government to carry on a vigorous campaign, a campaign which, in a few years, would show a marked diminution in the mortality from consumption throughout Canada. Every citizen has a duty in this matter. Some can give their time to the work, others can help financially and I earnestly hope that through the means of this exhibition and other educational work of this and allied associations, general interest will be awakened and that the various measures necessary to combat the disease throughout our country may soon be demanded.

The Scavenger Skirt

FASHION has decreed, so we are told, that the long trail in skirts is to be the vogue again. It would be a brave act of some society lady to enter a practical protest by refusing in this case to conform to dame fashion. Everywhere, and especially in our larger cities, the long skirt has been responsible to no small extent for the spread of consumption.

In a place named Magdeburg, or the Maiden's Town, in Germany, an edict against long skirts has been promulgated. No woman is allowed to drag, trail, or otherwise sweep the street with any dress, skirt, train, or similar drapery of herself; this in order "to prevent danger to health and annoyance by raising the dust." A contemporary has well said: "A despotic system like the German can handle in this manner conditions of such delicacy, but in our land no power could so arbitrarily rule individual taste except two—fashion and the dress-maker. The ladies have an interest in apparel which begins, as determined by experiment, before the age of two, and what is

government that it should undertake to affect the line of a skirt or the relative harmfulness of awkwardness and dirt? Shall male despotism force women to wear clothes as if they were thrown on regardless of appearances, and from sober reason, or with a pitchfork?"

The following is a poem, published in one of the English newspapers some time since, that is appropriate here:

"Sweep, sweep, sweep,
Where the waste of the street lies thick,
Sweep, sweep, sweep,
However our path we pick;
Dust, bacillus and germ,
Germ, bacillus and dust,
Till we shudder and turn from the sorry sight
With a gesture of disgust.

"Oh, men with sisters dear!
Oh, men who have well-dressed wives,
It is not alone an expensive mode,
It is one that hazards lives!
For malignant microbes swarm
In the triturated dirt,
And the dress that sweeps it up may prove
A shroud as well as a skirt!"

Under the Weather

IN a recent book on Weather Influences, Professor Edwin Dexter, of the University of Illinois, has proved that a close connection occurs between the weather and conduct. He was led to undertake this investigation by being impressed with the remarkable fluctuations in the conduct of school children, and he seems to have proved that there is a certain relation between the conditions of the weather and the condition of the nervous system.

In his opinion the term "under the weather" as applied to a lack of feeling of normal well-being has a real scientific basis. It has long been known that the weather has a greater or less effect on persons in good

health and that in certain diseases it exerts a potent influence, but Professor Dexter generalizes from his experience in this field of investigation to show that children in school and workmen in factories are more or less influenced by the state of the weather, and that they both do good or bad work according as the weather is good or bad.

Professor Dexter has also proved that different climate has different effects at different times on the same person, and he hopes by continuing his studies to finally show more intimately than has yet been determined, the relationship between nervous diseases and proper climates.

The Nursing Care of Tuberculosis Patients*

The Beginning of the Work

CHRISTINA A. MITCHELL, Visiting Nurse, Toronto.

IN the early autumn of 1905, the authorities of the Toronto General Hospital decided that some additional measures should be taken in connection with the treatment of patients, suffering from pulmonary tuberculosis, who came to the out department for treatment. After consideration, three gentlemen personally interested in alleviating the suffering of the tuberculous poor in our city, gave a sum of money to start the work, which was begun in November, 1905. A special clinic was established where those desiring examination and treatment could obtain it free, every Tuesday at 10.30 a.m., at the out-door department of the Toronto General Hospital.

A nurse was appointed at that time to assist the doctor in charge, her duties being to report the weight, temperature, pulse, and respirations, as each patient is examined, giving each a set of printed rules regarding the "fresh air treatment," food, rest, exercise, medicines, and disinfectants, to be used in their homes.

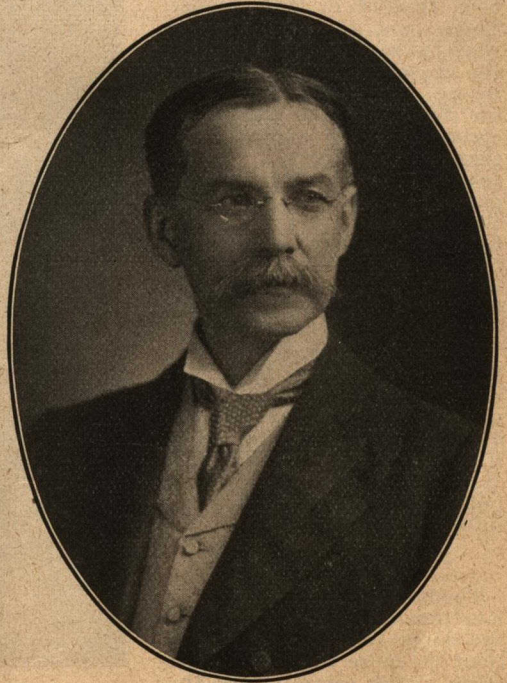
The nurse follows them to their homes during the week, reporting all particulars, such as rise in temperature; effect of medicines; the condition of appetite; habits; the kind of food taken; the condition of the home and its surroundings; the fresh air received and its great importance; the financial condition; if patient sleeps in a separate room from others in the family; how long in present dwelling, and the health of former tenants.

The nurse fills a printed form which is filed with the history of each patient. The nourishment, such as cream, milk, eggs, jelly, etc., is supplied.

THE WORK IN THE HOMES

The nurse is provided with a wicker basket, with a washable linen lining to carry the nursing appliances used in the sick room; it is light and easily kept clean; and she wears cotton uniforms. She is entirely under the direction of the doctor in charge of this work, reporting to him immediately if medical aid is required in the homes visited by her during the daily rounds. All other work is suspended in order to attend to the care of cases of severe hæmorrhage, or of dying patients.

Every attention is paid to the comfort of the patient, rubber air cushions and rings, wheeled invalid chairs, and hammocks loaned. The nurse's desire is to gain the entire confidence of these poor afflicted patients so that the rules and instructions,



DR. A. MCPHEDRAN, TORONTO.
President Canadian Medical Association.

which are sometimes strongly objected to, may be given persuasively, without causing fear or raising opposition. The fact that she can supply the much needed nourishment, or withdraw it should the patient utterly disregard the rules, gives her some authority in enforcing them.

The patients are sceptical and inclined to disregard the important truth, that the earliest beginning of tuberculosis is the time when a cure can be obtained. It is a sad feature that few present themselves for treatment at this stage. After repeated examinations at the clinic, if it is found impossible to have the thorough treatment in their homes, they are advised to go either to the Muskoka Free Hospital for Consumptives at Gravenhurst, or the Toronto Free Hospital for Consumptives, near Weston. No one can tell the great good done by these institutions as well as the nurse, who visits the homes, where the unsanitary conditions favor the disease, and the only chance for the patient is to get them away from these. We are favored above other cities by having them to send our tuberculous poor to.

* Paper read at the Tuberculosis Exhibition, Toronto, August, 1906.

Seventy patients have been visited during the few months the work has been in progress in Toronto; two have been found not tubercular; nineteen have been sent to the hospitals; forty-nine have been treated in their homes. Those sent to the hospitals were the most needy, living in the crowded part of the city, where unsanitary conditions are most likely to exist. In eight of these families more than one was treated; in two families there were three patients in each. In eight of these homes, it was found former tenants were suffering from tuberculosis. In one house, four patients had died inside of one year, three pronounced tuberculosis and one "a wasting disease". This house had not been fumigated nor re-papered after any death until a patient was recently sent to Weston Hospital, when it was done by the Board of Health, who now make it compulsory, the same as in other infectious diseases.

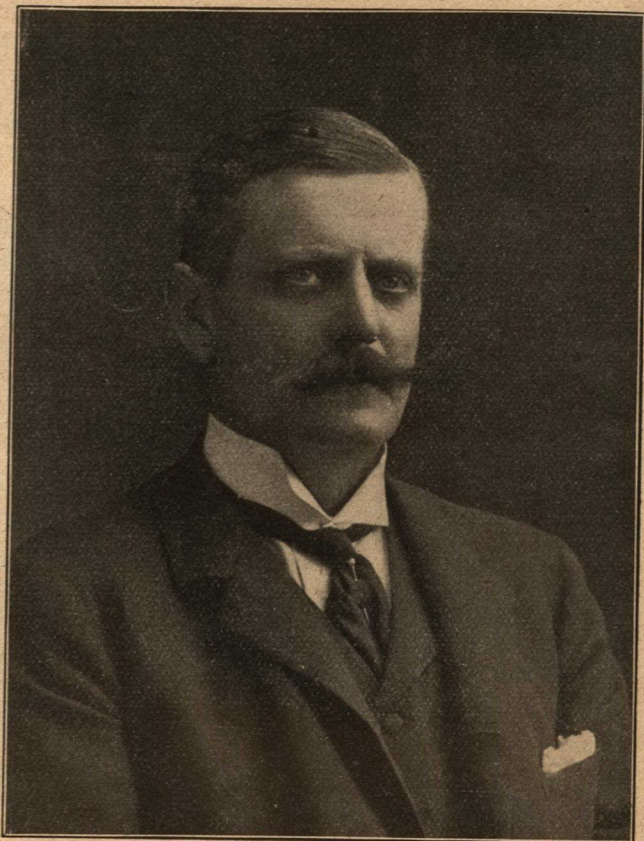
THE HOME

The home is where the problem lies, and the nurse finds the more intelligent the patient the more easy to instruct them in the carrying out the precautionary measures. No doubt the city that has advanced ideas regarding well constructed houses for the poor, clean streets and lanes, and insists upon these being kept clean, are educating the tenants of these homes to combat this dread disease.

Toronto is free from the crowded tenement; the dark sleeping apartments; the foul smelling, dark, narrow, halls and basements, of some of the large cities, but sad to say we have existing conditions that are unheard of in these other large cities, and a shame to our fair city.

We have numerous philanthropic men and Christian Societies working on many different lines for the uplifting of our poor. Would that some one could start interest in building houses convenient for them to live in, with suitable rents according with their income.

In one home a patient was found in the second rear. This means a rear behind a rear. These were formerly old houses in front, and moved to rear when better buildings were demanded. These all had out-houses attached, and in the most crowded



DR. DAWSON WILLIAMS
Editor *British Medical Journal*.

Dr. Williams, with Sir Wm. Broadbent, M.D., visited the Toronto Free Hospital for Consumptives, for advanced cases, and expressed himself greatly pleased with this forward step in providing for consumptives in the advanced stages of the disease.

part of the city. Another patient was found in the rear where the house consists of two small rooms, floor lower than the ground, roof caved in and patched with tar paper and boards. It was surrounded by stables, one being within at least ten feet from the door. There are three such dwellings there all occupied. The result of the nurse's visits to this locality was evident, by the lanes and stables being cleaned, and the houses papered and white-washed, lest she should report to the Board of Health.

This article was recently clipped from one of the daily papers: "Out of work, with wife in the hospital, and ordered to vacate his apartments, a laborer ends his life. Such tragedies are scarcely noticed in the hurry of what we regard as civilized life, but they show the thoughtful that our civilization has some unsolved problems that might claim a little more attention."

"To know well the cause of an evil is to be on the way to a cure", and for this subject to be fairly dealt with, and the disease stamped out, our city will soon have to solve this problem. It would both elevate and enlighten the poor to live in homes built on modern principles, with hygienic and sanitary arrangements, and go a great way to relieve the sick and stamp out the disease.

A few months ago 320 families received notice to vacate their homes in the eastern part of the city. There were two patients among this number visited by the nurse, one living with 15 or 20 others, Armenian Jews, sleeping many in a room without a thought of the danger. It was with greatest difficulty the instructions were given, as the interpreter was as hard to understand as the Armenians. These men had no where to go to look for homes. They were renting vacant stables, as the house rents were higher than they could pay.

The district covered by the nurse is from Logan avenue in the East end, to Toronto Junction, west; from below King street south, beyond Wells' Hill, north.

The largest number of patients being between Yonge and McCaul streets, below College street.

The actual nursing begins when the patient is confined to bed. In most cases during the last few weeks of the disease, they are gentle, easily managed patients at this stage, having no strength to raise any resistance. Their only desire is to lie still, and it is only by tact and persuasion that the nurse can get the necessary sponging, rubbing, and changing of clothing done, every exertion causing fatigue.

It is now that the early work tells and the nurse becomes indispensable to her patient, as this is the most dangerous stage where the disease is most transmissible, and the patient unable to follow rules or instructions. Those in attendance are responsible. The patient becomes variable and fanciful about food, and asks for the most unreasonable and unseasonable things.

Now, the narcotics are needed to quiet, and give rest from the incessant coughing and restlessness. It requires vigilance indeed not to overdo, but to give enough to relieve, yet not too much.

There is no one requires a good cook as much as tuberculous patients, nor any who need more thought bestowed on the food values. This is not often found in the poor homes. The nurse is called upon to teach and sometimes cook the nourishing food for the patients.

She is well rewarded in most cases for the work done by the response in carrying out the instruction given, and the last words are often given in the form of a blessing to the nurse who stands near to close the weary eyes.

It is to be desired by all interested in this great Anti-Tuberculosis Movement that our citizens may become wide-awake to the danger. And our city authorities enforce the laws and make new ones prohibiting expectoration on our streets, in our parks, in large places of resort, in stores and factories where persons are regardless of the feelings of others. Our eyes seem to open slowly to these facts, but they are being opened, and may we look for much being done in every direction.

Don't Get Old

THE man that looks at language as he looks at life, in cold literal outline, will dismiss this advice as some foolish theory about physical perpetuity. Mistaken in his inference he also thinks life more than long enough. He is pessimistic. He is old, however young. And to him Mark Twain's words are the most acceptable answer: "Cheer up, the worst is to come."

Another man sees some poetry in language and finds some good in life. He holds that if you can tell him how to continue to eat well, sleep well, work well, enjoy life generally, and shed abroad some of his own happiness, he doesn't want to get old. He desires to remain young as long as possible, as long as enjoyable, useful life remains in his being. This man is optimistic. He is young, however old. There is a man that was thought to be thirty-six when he was only twenty-three, but now he is thought to be a little

over forty when he is really fifty-three. When young he was old, but when old he is young. Pessimism is old age. Optimism is youth.

HOW TO BE YOUNG THOUGH OLD

The conditions necessary to the preservation of youth belong both to body and mind. They are judicious exercise, sufficient rest, good plain food, temperance in eating and drinking, chastity, cleanliness, pure air, work, recreation, good society, equanimity, rectitude, and doing good. These conditions have been told times without number in all ages, but they have been far less observed than ignored. Obedience never fails to bless, while disobedience brings the inevitable curse. And in exact proportion to the closeness or otherwise of relationship to law is the resultant good or evil. I remember hearing a venerable doctor deliver an address on the laws of health. Being late and the hall well filled, I had to take a seat on the

platform, which gave me an opportunity of seeing the effect of the lecture on the faces of the audience. The close attention and eager open eyes were striking. And yet the speaker was telling his audience what they already knew. But he spoke with authority. And we came away impressed and inspired with the truth that law obeyed is the prime good, and law disobeyed is the prime evil. Medicines might aid, as crutches do, but we must go back to the laws of health for essential permanent good, otherwise there is no remedy. It is the absolutely necessary condition of preserving youth—of postponing old age, of having if possible no old age at all.

IMPORTANCE OF EXERCISE

It would be impossible to take up these conditions of health, even one of them, in proper detail within the limit allowed this article. I shall therefore restrict myself to a few remarks on EXERCISE. Many concede its all-importance, few obey its law, and fewer still understand why they should. To begin with, what is its effect upon a *muscle*? For authoritative information we must draw from the fountain of the specialist. Dr. McGregor-Robertson writes—"The stimulus to nutrition which the exercise has produced affects every part of the muscle, and not only those substances in it or of it, involved in the chemical changes. Every fibre of it shares in the benefits of the increased flow of the nutritious fluid through it, and increased size and vigor of the fibres, and, it may be, the production of new fibres, are directly encouraged. Not only does the movement of the muscle and the quickened flow of blood through it serve to remove the waste matters by the activity of the moment, but effete material, formerly produced, whose retention in the muscle has been encouraged by a period of comparative inaction, is now swept out. Thus the muscle is strengthened by the formation of new material in increased amount and reinvigorated by the cleansing process to which it is subjected." In other words, in exercise not excessive the duration or life of the muscle is prolonged. Again, "If, instead of limiting our view to the results of the contraction of one muscle, we reflect what must be the consequences of the activity of a large number of muscles, as is necessary for walking, and still more pronounced in running, in cricketing, in boating, etc., we shall begin to realize how great must be the effect upon the whole body by the increased activity of the circulation induced, by the greatly increased demand for nutritive material for repair, by the call for more oxygen to effect the increased chemical changes, by the stimulation of the kidneys, lungs, and skin that subsequently results from the increased waste products thrown into the blood, which it is the business of these organs to remove, and we begin to perceive how it is that the exercise has a marked influence not only on the muscles called into

play, but an immediate and stimulating effect upon every other organ of the body."

EFFECT OF EXERCISE ON HEALTH

The heart beats quicker, more nutritive material is carried to the muscles, and the indolent body is roused into exhilarating life. The lungs, expanding more quickly and completely, inhale a much greater quantity of oxygen and exhale much more carbonic acid gas, with increased flow of blood and better development of chest, results that cannot be overrated. The liver, shaken up, increases the consumption of energy-yielding foods, and ceases to be sluggish. The kidneys and the skin are enriched by the extra flow of blood, and remove not only normal waste but the waste products of previous inaction. And the brain and nervous system, in essential connection with the muscular system, are invigorated, strengthened, and enabled or made to do superior work, the command being held, not now by a set of nerves, weak, sensitive and anarchic, but by a strong will.

"Exercise, then, is not a mere matter of muscle. It is not a mere question of firm energetic muscles against small flabby ones; it is a matter affecting the whole being, body and mind. It is a question of the vigor of the whole man, concerning the general well-being of the whole body, not an activity suitable for boys and young men, but necessary for both sexes and at all ages, a potent, nay an absolutely indispensable agent in the growth and development of the child, and as necessary for the continued health and active life of the fully grown as are food and air."

MODERATION IN EXERCISE

It is of course assumed in all that has been said that the exercise is enough and not excessive. The effects of exercise under or over the well-balanced necessity are, in the degree that law is broken, certainly detrimental. Transgression, negative or positive, has one effect, the accumulation of waste products, involving fatigue. Over-exertion exhausts the nerve-centres of supply of muscular energy and wears out the muscle itself. But insufficient exercise has more numerous evils than those of excess. Children are stunted in body and mind; girls, particularly, suffer most, often in bad development of figure or lateral curvature of spine; and adults, weakened in heart and circulation, and acquiring unhealthy deposits of fat, fall off in general health and vigor. Men of business wonder what is wrong. But they above all, especially such as control a factory with its complicated machinery, should understand. Disuse, rust, dirt, want of oil, and want of attention will clog and render useless any set of wheels. How much more complicated and in need of attention is the human machine! And every man can understand that when his furnace is neglected or clogged with ashes the fire is burning low.

EXERCISE IN WALKING

How good it is for most people to know that "There is no form of muscular activity which brings into full play all the benefits to the body that exercise can confer like that of walking. It calls into play the greatest number of muscles, leaving none outside the range of its influence we may say, except those of the upper extremities. The action of the muscles appropriate to it is regular and methodical, not sudden nor spasmodic. It implies no undue strain upon any organ, supposing of course that it is not unduly prolonged; and it is suited to all ages, except, of course, the very youngest." We cannot all ride on horseback or in automobiles. This is good, obviously good. It is well that we have to earn our bread by the sweat of our brow, and that walking, best of all forms of exercise, is within the reach of all. We need not envy our rich neighbours. We should the rather pity them for being so ill off. Science has given a new meaning to the old words—"I have seen servants upon horses, and princes walking as servants upon the earth."

If then we would not get old, the muscular system must have exercise, neither defective nor excessive. Temperance in all things is the iron rule. Dr. Parkes says that "we can perhaps say, as an approximation, that every healthy man ought, if possible, to take a daily amount of exercise in some way, which shall be not less than 150 tons lifted 1 foot. This amount is equivalent to a walk of about nine miles; but then, as there is much exertion taken in the ordinary business of life, this amount may be in many cases reduced. It is not possible to lay down rules to meet all cases." A man, business or professional, may plead want of time, but he will call upon Wisdom some day when she will not hear. If he calls early she will answer. If he would gain time he must lose it. Exercise is a duty. A writer on athletics, himself an athlete, says—"Structures can go on performing their functions only so long as the functions are regularly demanded of them. Let the demand diminish, and first the function and then the structure will diminish. . . No exercise or sport should be given up at any particular time of life; but the exercise in its intensity and amount should be diminished as one's feelings prompt. Thus an old man may row, though not so hard as a younger man. He may play cricket or lawn tennis till he tires. He may swim easily,

walk, ride a bicycle, or run slowly. But that he must eschew all active games simply because he is past thirty-five is blatant nonsense."

EXERCISE AFTER FORTY

"Most men do not attain their full strength until they are forty; whence it would seem that they should ease up when about sixty-five. And after that age they should work, though not so strenuously. A man does not really begin to live until he is thirty or thirty-five. It is then that he should have the most physical stamina; it is then that his thirst for knowledge is greatest, when his matured mind can grasp intricacies which it could not have grasped at an earlier stage. Then judgment and experience amount to something, and wondering and trifling yield to work. Few men have made their mark until after maturity. We have many remarkable instances of strength and endurance in old men. We have the case of the pedestrian, Weston, who recently walked ninety-six miles in less time than he had made the same distance forty-three years ago. This feat he would certainly not have accomplished had he stopped taking long, fast walks when thirty-five. F. J. Furnivall, now eighty-five, still sculls on the Thames for exercise. When one hundred, Henry Jenkins swam the Yorkshire Swale with ease!"

Be young. It is a good thing to make the acquaintance of little children, all children, even strange children on the street as you pass them by. There is a great charm in their trustfulness. They will shake hands with you, smile, and converse with you as if you had met them before. One bright, bracing morning, I came across a little girl skipping briskly on the sidewalk. I did not know her but I halted and spoke to her about her pastime. Then I enquired if her father could skip. "No," was the innocent reply, "but my grandfather can." Well, this was fine. I never forgot it. It puts grandfatherhood in a new light. It is usually viewed across the years with gloom. But this must be all a mistake. For to be a grandfather is to be linked to the skipping rope with all its buoyancy and fun. Hail to grandfatherhood! All hail! But why couldn't the little girl's father skip? I don't know. Probably because he was old.

GRANT BALFOUR.

Toronto, Can.

Campaign Against Tuberculosis in Spain in the Seventeenth Century

The records of the city of Valencia bear a decree dated 1698 demanding that physicians must inform the municipal authorities when they encounter a case of consumption, and that the clothing and bedding used by a consumptive shall be burned after his death, with the exception of metal articles. A large fine is imposed for buying articles known to

have been used by deceased consumptives, and also for neglect to declare the cases to the authorities. The decree provides for the public proclamation of its provisions in all parts of the town by the town crier. The facsimile of the quaint wording and seal is given in the "Siglo Medico," No. 2641, 1904.

HEREDITY

By ARTHUR J. RICHER, M.D., Montreal, Que.

THE question of heredity is one which cannot be disposed of without making some concessions to those who have clung so long to the theory. If we accept the theory of heredity, however, we must of necessity give up, almost entirely, all hope of ever being able to get rid of this disease.

Heubner of Berlin, who has given us excellent statistics, draws our attention to the fact that children seldom die from this disease within the first three months of life. If it were hereditary we should have deaths even within the first few days after birth. Among the children brought to his clinic for treatment for all sorts of diseases, the following percentage suffered from tuberculosis:

884 infants less than 3 months,	0	per cent.
218 children, 3 to 6 months . . .	3.6	"
93 children, 6 to 9 months . . .	11.8	"
79 children, 9 to 12 months . . .	26.6	"
458 children, 2nd year of life . . .	14.2	"
367 children, 3rd year of life . . .	13.4	"
306 children, 4th year of life . . .	11.1	"
470 children, 5-7th year of life . . .	7.4	"
682 children, 7-10th year of life . . .	5.0	"

A few moments' reflection upon the above figures will explain why one should cling to the idea of infection rather than of heredity. It is a well-known fact that paternal transmission is impossible, and the disciples of the theory of heredity have striven in vain to explain it. Maternal transmission, owing to the early contact, could be easily explained by the fact that contagion takes place almost at birth, and is continued during a long period of nursing, during which time the baby and the mother are in almost continual contact, and therefore contagion becomes the only hereditary factor.

"Without exposure, no hereditary tuberculosis," says Bernheim. In all his observations he has never found that the reverse ever happened. No matter how far advanced the disease may have been in the parents, if the child was removed early and kept away from the parental home, there has been no inheritance of tuberculosis.

The following are given as examples of his observations:—

The family of B— was composed of five children, a father who died of tuberculosis, and the mother who was quite well. The second child was removed from its home immediately after its birth, reared by a healthy nurse until he was thirteen years of age, and then placed in a school. He is now a healthy man of 36; he has never lived with his parents. The other four children lived with their parents; two of them have died of pulmonary tuberculosis, and the other two have the disease in an advanced stage.

In another family of seven children, the father and mother were both tuberculous. The second and fifth child were removed from their parents and never lived with them. The five children reared by their parents have all died of tuberculosis. The two who were removed remained well and are now both married and have fine healthy children of their own.

Three times has this observer had an opportunity to assist at the birth of twins born while their mothers were affected with pulmonary tuberculosis. In each instance one of the children was reared in its own home, being nourished by a healthy wet nurse, while the other child was sent from its home and reared in the country. The three children which remained at home died, one of pulmonary tuberculosis, the two others of tubercular meningitis or inflammation of the brain. Two of these healthy nurses also died of tuberculosis later on. On the other hand, the three children removed from their homes and reared in the country under healthful hygienic conditions, are still living and well. Could one require any further proof of the non-heredity of the disease? If so, he has but to look into modern medical literature and read of thousands of observations of a similar character, establishing the proof beyond all doubt.

In cattle the records give parallel results. Baumgarten, in his experimental work with guinea pigs, arrived at the same conclusions, after having isolated some of the offsprings and left others with the infected animals.

The trustees of the MUSKOKA FREE HOSPITAL FOR CONSUMPTIVES are now making their annual appeal for funds for maintenance of patients and extension of the work. DO OUR READERS KNOW OF A MORE WORTHY CHARITY? Money is urgently needed now. Contributions may be sent to Sir Wm. R. Meredith, Kt., Chief Justice, or W. J. Gage, Esq., Toronto.

MAKING APPLICATION FOR ADMISSION

Those Desiring to Enter the Muskoka Free Hospital for
Consumptives Can Learn How by Reading
What Follows.

[For the information of medical men who have patients they would like to send to the Muskoka Free Hospital for Consumptives and for others who are looking for help in this way, there has been prepared a twenty-page booklet, giving very complete details and answering almost any likely question of an applicant. This booklet will be sent free to anyone who writes the Head Office of the National Sanitarium Association, Toronto. We publish below a few extracts from the booklet.]

Admission.

Any person desiring admission to the hospital should send or apply to Mr. J. S. Robertson, Secretary National Sanitarium Association, Saturday Night Building, Toronto, for blank application forms, which, when filled in, should show that the patient cannot afford to pay full maintenance at a pay Sanatorium and therefore needs the help of the hospital, and also that he or she is medically a suitable case for treatment there. The hospital is in no sense a home for consumptives in advanced stages. It is for cases which can be cured or admit of hope of radical improvement. If possible it is advisable for the patient to be examined by one of the examining physicians appointed in various parts of the country (see list). All examination forms are then referred to the physician-in-charge at the hospital, and are most carefully considered. Cases obviously unfit are refused; cases accepted are grouped in classes I., II., and III., according to favorableness of outlook; class III. consisting of very doubtful cases. As the present accommodation of the hospital is far from sufficient for all who apply for admission, it is necessary to give preference to the cases most likely to do well, and cases which prove to be unsuitable are given a month's treatment and training in care of themselves and others, and discharged. It must be remembered that it is impossible always to judge a case accurately by a written description, so all cases which enter the hospital are on probation until the physician-in-charge has approved them. Cases classified from the form as I., or II., may prove to be so unsuitable that they are allowed only the one month above referred to, while class III. cases sometimes make a good showing and are kept the full term.

Accommodation.

There is at present room for seventy-five patients in the group of buildings comprising main building, one pavilion, and five roofed tents or shacks. This accommodation is likely to be increased very soon.

Ward System.

All patients are in wards. There are no private rooms, except infirmary rooms for temporary acute illnesses. Any statement to the effect that patients can be lodged in separate rooms is erroneous. The roofed tents are for men, four in each.

Class of Patients.

The pavilion (twelve beds) is also used for men. In the main building are four eight-bed wards, one of five beds and one of four. Most of the main building wards are for women. The space, high ceilings, and many sunny windows of the wards, assure far better air and light than could possibly be had in single rooms, and a degree of privacy may well be sacrificed in view of the benefits to be obtained. Moreover, the patients who have come to the hospital have been almost without exception of most respectable classes and are pleasant neighbors—good work-people, and also clergymen, teachers, artists, nurses, students, etc., who have been dependent upon their own efforts and had no reserve for illness.

Fear of Infection Groundless.

There is a popular fear, shared also by some physicians, that it is dangerous to go to a consumptive sanatorium, that incipient cases may contract more serious infection and that doubtful cases would run grave risks. The fact is that a sanatorium that is properly run is the safest possible refuge from tuberculosis.

Length of Term.

At present, because of the limited accommodation and the great pressure for admission this full term is only four months, which may in rare cases be extended to six months for such patients as are making unusually good progress, and for whom the extension may favor speedy return to work.

No Distinction Made.

Admissions are made in order of application, except that class I. and II. patients have preference over class III. No distinctions of any kind are made in order of admission, in extension of term, in readmission, or in treatment at the hospital between part-paying and free patients, or between patients who pay less and those who pay more. Medical considerations only decide questions of locations in wards, extra diet, etc.

Expenses.

The Muskoka Free Hospital for Consumptives depends for maintenance almost entirely upon public subscriptions. Accordingly any patient who can pay or whose relatives can pay any part of the maintenance expense (about \$8.50 per week per patient) should not allow the full burden to fall upon the charitable public. The proportion of patients who contribute something (sums ranging from \$1.00 to \$6.00 per week) for their maintenance is about 45%. The daily average amount received from individuals or municipalities (not including absolutely free patients) for past year was only fifty-one cents.

It must be remembered that this weekly cost covers not only food and lodging and service, but medical and nursing attention, medicines, laundry, and the general cost of administration of a large institution. Patients and their luggage are brought to and from the station free of charge. Patients' laundry is done free of charge up to a limit of about fifty cents a week for certain garments specified on a printed list.

Any laundry over and above this allowance is at the patients' expense. If patients desire to go to Gravenhurst (the town is 1 1/2 miles from the hospital) by the bus, or if they have parcels coming by freight or express, twenty cents is charged for return fare in the one case, and ten cents for cartage on each parcel in the other. The only required expenditure is twenty-five cents for a metal sputum-cup for use while in the hospital and for the patient to take home. The hospital supplies the specially-prepared pasteboard refills which are used in these cups and then burned. Patients will probably find it desirable also to provide themselves with pocket flasks for sputum (from sixty cents up) and with thermometers (fifty cents), both of which they get at cost through the hospital. The single fare from Toronto to Gravenhurst is \$3.40, return ticket good for one month, \$5.70. All patients travelling *via* Toronto should get receipts for their tickets signed by the Toronto ticket agent, as the hospital can collect refunds for patients between Gravenhurst and Toronto.

Life at the Hospital Cheerful.

The cheerfulness of the hospital life is invariably a surprise to visitors and patients. Even the most despondent and reluctant patient is seldom able to stay low-spirited for more than a week or two, for there is an atmosphere of hopefulness, good fellowship and kindness that one can scarcely fail to feel and respond to.

Wait for Notification.

Patients should never come to the hospital until they have been definitely notified to do so, as there is scant accommodation in the town of Gravenhurst for tuberculous patients, and it happens too often that patients have to make a weary and expensive journey home again if they come without notice. The hospital has no extra accommodation for such patients.

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Raw Meat Alimentation in Tuberculosis

R. W. PHILIP records the results of a series of observations. He found that the exhibition of raw meat was followed by a marked increase in nitrogen retention, even with a diminished intake. Intestinal metabolism was improved, there was a rapid increase in hemoglobin, while digestive leucocytosis (lymphocytosis) was increased, sometimes to more than double that occurring in relation to cooked meat. The following recipes are given for the actual preparation of the meat: (1) Pounded raw meat; that is, finely minced or bruised beef slightly seasoned with salt, served natural, cold or gently warmed throughout, say from a quarter to half a pound, three times daily. The meat should be perfectly fresh; (2) beef juice prepared as follows; extract half a pound of *fresh* meat in half a pint of cold water plus half a teaspoonful of salt for from one and a half to two hours at 35° C. Express the liquid through a cloth. Or the juice may be expressed from the meat directly without the addition of water with more powerful pressure. The meat juice must be freshly prepared for use on each occasion. (3) Raw meat soup prepared as follows: Take half a pound of finely minced *fresh* meat and mix in a bowl with sufficient milk to produce a

uniform paste. Immediately before serving add half a pint of milk at 60° C.; or the soup may be made in a similar fashion with stock of beef or chicken, or veal, in place of milk. —*The Lancet.*

Rest!

Rest is not quitting
The busy career;
Rest is the fitting
Of self to one's sphere.

'Tis the brook's motion
Clear without strife,
Fleeing to ocean
After its life.

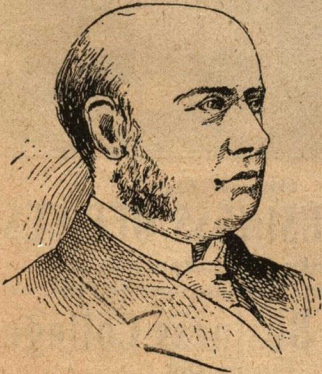
'Tis loving and serving
The highest and best;
'Tis onward unswerving;
And this is true rest.

—*Goethe.*

The First Autopsy in Montreal

IN THE description in "Hakluyt's Voyages" of the travels of Jacques Cartier, is found the following, which describes the earliest reported autopsy performed in this city. It took place in 1535, when the winter was passed in Hochelaga and many of the crew died of an epidemic disease.

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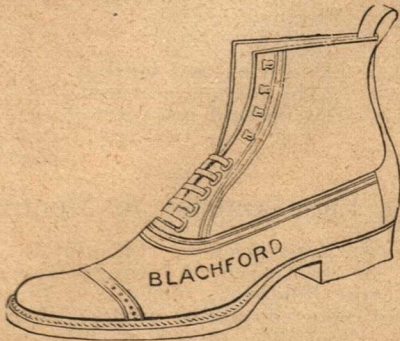
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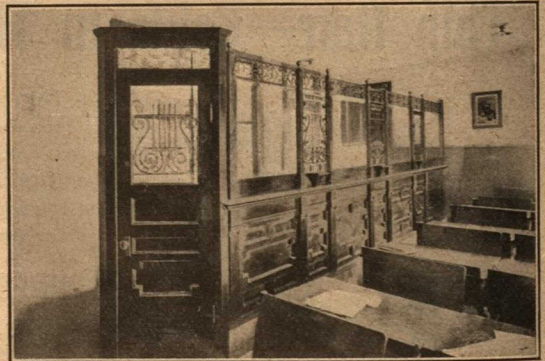
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