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., MAY, 1907. NO. 7

Milk—Its Use as a Food in Tuberculosis

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MILK is peculiarly valuable as a food for persons suffering from tuberculosis, for several reasons. It contains the four classes of nutrient compounds into which food products may be divided—protein, fats, carbohydrates, and mineral matter. And although no one substance can be considered a complete food in itself, milk more nearly reaches the standard of a complete food than does any other food product, in that it contains the four nutrient compounds above mentioned in almost the proper proportion to meet the requirements of the body. Milk, moreover, is suitable for use either alone or in combination with other foods and at the price ordinarily paid for it, it must be considered as a reasonably cheap food product.

A quart of milk contains about the same amount of nutrient material as three-quarters of a pound of beef, or as six ounces of bread. But while this is so, it does not follow that these quantities of these three materials would be equally useful as food. Either the milk or the bread eaten alone, would be more useful as food than would the meat if eaten alone, because the former contains the different kinds of nutritive ingredients in proportion more nearly adapted to the use of the body than does the latter. Milk, as a matter of fact, furnishes material for the building and repair of the body, as well as other material to supply it with fuel, to keep it warm and to furnish the energy necessary for it to do its work.

The composition of milk and other food materials is found by chemical analysis and for much valuable information along these lines we are indebted to the Department of Agriculture at Washington whose bulletins contain material gathered from numerous authoritative sources. No apology need be made for using the information therein contained because that is the purpose for which they are published. A rough analysis of milk is made in a measure in every household. When milk stands the cream rises. This cream consists of minute particles of fat surrounded by casein and other substances. When the cream is put into the

SUMMER VIEW OF TORONTO FREE HOSIPAL FOR CONSUMPTIVES.
"The site is an excellent one for such an institution."—Dr. R. W. Bruce-Smith, Government Inspector.

churn and agitated, the globules of fat are run together and butter is formed. When rennet is added to milk it is curdled. The ferment of the rennet causes the casein to coagulate forming the curd. If from this the liquid is expressed, cheese is formed, since cheese contains the casein and with it fat and other materials which were in the milk and were entangled in the coagulating casein. The whey from which the curd has been separated contains a form of sugar which when separated from the liquid is sold as milk sugar. After the sugar has been removed there still remain considerable amounts of mineral matters.

Except in the percentage of fat the composition of mixed or herd milk is remarkably uniform whatever the breed, and the average composition may be given as follows:—

	Per cent
Fat	4.00
Carbohydrates	4.50
Proteids	3.50
Salts	.75
Water	87.25
	100.00

It will be seen then that the chief bulk of milk is, of course, made up of water, the amount of which may vary even in ordinary unadulterated milk from 90 per cent. in a very poor quality to 84 per cent. in an unusually rich milk. The principal nitrogenous compound of milk is casein. Besides the casein there is a certain amount of albumin present, called albumin of milk. This is more or less similar to the albumin in the white of egg.

The quantity of albumin is, however, much smaller than that of casein, being on the average about one-seventh of the total protein. The fat of milk is commercially the most important of its constituents, since it is the source of butter and enters largely into the composition of cheese. The amount of fat in milk varies, but it should not fall below 3 per cent. and except in unusually rich milk it will not exceed 5 per cent., while good ordinary unadulterated milk from a herd of well fed cows should average about 4 per cent. of fat. The chief carbohydrate in milk is sugar of milk. It is similar in chemical composition to cane sugar but is not nearly as sweet. The amount present averages about 5 per cent.

THE CHARACTERISTICS OF MILK

Are quite familiar to all. Good cows' milk should be neutral in reaction. The color should be white or slightly yellow, the taste sweet and the odor faint and fresh. Bad milk often has a bad odor, either sour or derived from absorption from some neighboring material. It is sour to the taste and if held to the light in a test tube or small thin glass it may have a bluish or reddish tinge and appear watery. It is true also that milk varies in composition and this makes it possible for one person to pay nearly twice as much as another for the same quantity of nutrient material when both buy their

AMOUNTS OF NUTRIENTS IN A POUND (PINT) OF MILK AS COMPARED WITH A POUND OF MEAT, BREAD AND OTHER FOOD PRODUCTS.

FOOD MATERIALS	EDIBLE PORTION					
		NUTRIENTS				
	WATER (pound)	PROTEIN (pound)	FAT (pound)	CARBOHYDRATES (pound)	MINERAL MATTER (pound)	FUEL VALUE (calories)
MILK (1 pint)						
Whole Milk	0.87	0.03	0.04	0.05	0.01	325
Skim Milk (0.3 per cent. fat)	0.90	0.04	....	0.05	0.01	170
Buttermilk	0.91	0.03	0.01	0.05	0.01	165
OTHER FOOD MATERIAL (1 pound each)						
Cheese	0.34	0.26	0.34	0.02	0.04	1965
Butter	0.11	0.01	0.85	....	0.03	3605
Beef, Sirloin	0.53	0.16	0.17	....	0.01	1040
Mutton, side	0.43	0.13	0.24	....	0.01	1275
Loin of Pork	0.44	0.14	0.25	....	0.01	1340
Ham	0.35	0.13	0.34	...	0.04	1655
Salt Pork, fat	0.07	0.02	0.87	....	0.04	3715
Chicken	0.48	0.15	0.01	....	0.01	325
Fresh Cod Fish	0.58	0.11	....	....	0.01	205
Salt Cod Fish	0.40	0.16	....	....	0.19	315
Mackerel, Salt	0.38	0.17	0.17	....	0.10	1050
Oysters, solids	0.88	0.06	0.02	0.03	0.01	235
Wheat Flour	0.12	0.11	0.01	0.75	0.01	1645
Cornmeal	0.13	0.09	0.02	0.75	0.01	1655
Oatmeal	0.07	0.16	0.07	0.68	0.02	1860
Wheat Bread	0.35	0.10	0.01	0.53	0.01	1205
Crackers	0.08	0.11	0.10	0.69	0.02	1895
Dried Beans	0.13	0.22	0.02	0.59	0.04	1590
Beets	0.70	0.01	....	0.08	0.01	170
Potatoes	0.67	0.02	....	0.15	0.01	325
Turnips	0.62	0.01	....	0.06	0.01	135
Apples	0.62	0.01	....	0.12	....	255

milk at the same price per quart, and while variations in the quality of milk may be due to difference in the breed, or individuality of the cow, to methods of feeding and handling, it is to be remembered too that they may be due to adulteration, the chief methods being *(1)* the addition of water, *(2)* the removal of a portion of the fat either with or without the addition of water, and *(3)* the addition of preservatives.

The value of milk as compared with other foods, may be seen from the table on page 2 which is from the U. S. Department of Agriculture, Farmers' Bulletin, No. 74, 1898.

The principal foods derived from milk, which are in common use, are:—

(1) Condensed milk *(2)* skim milk *(3)* cream *(4)* butter *(5)* butter milk *(6)* cheese *(7)* whey.

CONDENSED MILK

Condensed milk is prepared by slowly evaporating the water of milk by moderate heat *in vacuo* to the consistence of honey. There are two varieties, one which is condensed to about one-fourth of its bulk and superheated, and to which little or no sugar is added, and a stronger to which cane sugar is added in excess. It is soluble in water and is very useful when fresh milk cannot be obtained but otherwise has no advantage over the natural product.

SKIM MILK

The value of this derivative of milk is not generally appreciated. It is obtained by removing the greater part of the cream either by "skimming" or by the use of a cream separator. Ordinary shallow pan setting leaves anywhere from one-tenth to one-quarter of the original fat of the milk in the skim milk. Deep cold setting removes the fat much more completely, as does also the separator. When taken with bread or used in cooking, skim milk forms a very nutritious addition to the food. The ingredient of foods which costs the most, has the greatest value, and is most apt to be lacking in ordinary dietaries is protein. Skim milk has nearly all the protein of the whole milk. By the removal of the fat in the cream, the milk loses about one-half of its full value but practically none of its protein. What is left as skim milk has all the value of the whole milk for the building and repair of tissue, for the making of blood and muscle and bone, and at the same time half the value of the whole milk for supplying heat and energy. For these reasons skim milk should be more widely used than it is.

CREAM

Cream is the fat of milk. It rises to the top of vessels in which milk is allowed to stand. The globules of fat collect and form a yellow layer. This forms a wholesome and agreeable food, and is an excellent substitute for Cod liver oil in tuberculosis. Ice cream when simply made is likewise very nutritious. It should be eaten very slowly, so that it may be well warmed in its passage to the stomach. The fuel value of a pint of cream is about the same as 1⅛ pounds of bread or 1½ dozen bananas, or 4½ pounds of potatoes. It is not, however, an economical food.

BUTTER

Butter is made from cream by a mechanical process, the chief feature of which is the breaking of the albuminous envelopes which enclose the fat globules. The fat globules run together and salt is added. An average sample of good butter contains:—

	Per cent.
Water	11.83
Fat	82.76
Casein	0.18
Salt	5.22
	100.00

Taken with other foods butter is highly digestible and nutritious.

BUTTERMILK

Buttermilk is the residual milk after the butter fat has been removed by churning. It is very wholesome and a glass of it contains as much nourishment as two ounces of bread, or a large potato, or half a pint of oysters.

CHEESE

Cheese is the casein of milk separated by rennet, and it is a very nutritious food, as, weight for weight, it contains about as much protein as meat. Cheese made without fat, consisting of almost pure casein is difficult to masticate, is slowly dissolved in the gastric juice and is slowly digested, but cheese which retains some fat is friable, light and easy of digestion.

WHEY

Is the liquid left when the casein and fat have been removed as cheese by the action of rennin. It is very palatable and often very much enjoyed by invalids.

THE DIGESTIBILITY OF MILK

Milk is considered to be a very digestible food. The value of a food depends not only upon the quantity of nutrient material which it contains, but also upon the quantity of each of these which is actually digested and used by the body for its support. The protein of milk, as has been found by experiment, especially when it is used with other food materials, is readily and completely digested. In this respect it is similar to the protein of meat and fish, but differs from the protein of vegetables which is much less completely digested. The fat of milk is an extremely fine emulsion and is therefore in a sense predigested and so may be very readily assimilated.

When milk enters the stomach it is speedily curdled by the action of the acid gastric juice. If taken alone in large quantities the

casein gathers in lumps, and may with difficulty be digested. When cows' milk has been boiled before being taken into the stomach, the casein is likely to be precipitated in a more flocculent form, and so the milk is more easily digested. Lime tends to prevent the curdling of the casein in lumps, doing so both by neutralizing the acid and also by retarding coagulation. For this reason limewater is frequently added to milk.

MENUS CONTAINING MILK

It has been estimated that a man doing an average amount of manual labor requires in his daily food about 0.28 of a pound of protein, and in addition, enough fats and carbohydrates to make the fuel value 3500 calories. Men with less muscular work require less, those fighting a wasting disease like tuberculosis need more.

To illustrate the ways in which milk may be combined with other food materials to form daily dietaries consisting of the proper proportions, a few menus as compiled by the United States Department of Agriculture at Washington are given.

No. 1. MENU FOR FAMILY EQUIVALENT TO FOUR MEN AT MODERATE MUSCULAR WORK.

FOOD MATERIALS	WEIGHT	COST	PROTEIN	FUEL VALUE
Breakfast	lbs. oz.	Cts.	pounds	calories
Beef Liver	1 0	6	0.216	665
Hot Biscuit	1 8	4½	.140	2595
Butter	2	3		434
Milk, 1 quart	2 0	6	.033	325
Coffee		2	.010	410
Total		21½	.339	4429
Dinner				
Beef Brisket, boiled	2 8	15	.313	3950
Potatoes	2 0	3	.036	650
Apple Pie	1 0	5	.033	1250
Bread	8	1½	.048	603
Butter	1	1½		217
Skim Milk, 1 quart	2 0	3	.033	170
Total		29	.463	6840
Supper				
Corn Meal Cake	6	1	.033	621
Skim Milk	2 0	3	.065	340
Bacon	8	8	.046	1390
Coffee		2	.010	410
Total		14	.157	2761
Total per day		64½	1019	14030
Total for one man		16	.255	3507

No. 2. MENU FOR FAMILY EQUIVALENT TO FOUR MEN AT MODERATE MUSCULAR WORK.

FOOD MATERIALS	WEIGHT	COST	PROTEIN	FUEL VALUE
Breakfast	lbs. oz.	cts.	pounds	calories
Oatmeal	0 6	2	0.059	697
Skim Milk, 1 pint	1 0	1½	.034	170
Sugar	2	½		232
Bread	1 0	3	.095	1205
Sausage	10	6	.080	1358
Butter (24 cents a lb.)	1	1½		217
Total		14½	.268	3879
Dinner				
Beef Flank, stew	2 8	15	.430	2988
Potatoes (60 cents per bushel)	3 0	3	.054	975
Cabbage	12	1	.013	105
Corn-meal Pudding				
Corn Meal	4	½	.022	44
Skim Milk, 1 quart	2 0	3	.068	340
Molasses	12	1	.020	987
Total		22½	.604	5809
Supper				
Beef, warmed in gravy	1 8	3	.086	598
Hot Biscuit	2 0	6	.340	2600
Butter	2	3		434
Milk, 1 quart	2 0	6	.033	325
Total		18	.259	3957
Total per day		55	1.134	3645
Total for one man		14	.285	3411

No. 3. MENU FOR FAMILY EQUIVALENT TO FOUR MEN AT MODERATE MUSCULAR WORK

FOOD MATERIAL	WEIGHT	COST	PROTEIN	FUEL VALUE
Breakfast	lbs oz.	cents	pounds	calories
Corn Meal	0 5	1	0.022	414
Milk	6	1	.012	64
Sugar	2	½		232
Toast	10	2½	.059	753
Butter (24 cents per lb.)	2	3		434
Total		8	.093	1894
Dinner				
Beef Roll (for roasting)	3 0	15	.417	2280
Potatoes	1 8	2	.026	488
Beets	8	1	.007	85
Bread	10	2½	.059	753
Butter	2	3		434
Total		23½	.509	4040
Supper				
Beans, baked	2 0	6	.446	3180
Pork	12	6	.012	2556
Potatoes, fried	1 8	2	.026	488
Lard	2	1		537
Bread	10	2½	.059	753
Butter	2	3		434
Total		20½	.543	7948
Total per day		52	1.145	13885
Total for one man		13	.285	3471

No. 4. MENU FOR FAMILY EQUIVALENT TO FOUR MEN AT MODERATE EXERCISE

FOOD MATERIALS	WEIGHTS OF FOOD			
	With small amount of milk		With large amount of milk	
Breakfast	lbs.	oz.	lbs.	oz.
Bananas, apples, pears	1	12	0	12
Cereal		4		4
Milk		8		8
Sugar		2		2
Broiled Sirloin Steak	1	4	0	12
Baked Potatoes	1	8	1	8
Hot Rolls	1	0	1	0
Butter		2½		2½
Extra Milk			1	8

Dinner	lbs.	oz.	lbs.	oz.
Tomato Soup	1	12	1	12
Roast Beef	1	12	1	8
Mashed Potatoes	1	4	1	4
Turnips		8		8
Apple Fritters				
Apples		8		8
Flour		2		2
Egg		2		2
Lard		1½		1½
Bread		8		8
Butter		2		2
EXTRA SKIM MILK			2	0
Supper				
Canned Salmon	1	6	1	0
Potatoes		12		12
Bread		8		8
Butter		2		2
Berries, canned or fresh		8		8
EXTRA MILK			2	0

WITH SMALL AMOUNT OF MILK	COST	PROTEIN	FUEL VALUE
	cents	pounds	calories
Breakfast	.48	0.39	5300
Dinner	.51	.39	5800
Supper	.33½	.34	3200
Total per day	$1.32½	1.12	14300
Total for one man	.33	.28	3575
WITH LARGE AMOUNT OF MILK			
Breakfast	.43	.36	5270
Dinner	.47½	.41	5400
Supper	.34½	.34	3600
Total per day	$1.25	1.11	14270
Total for one man	.31	.28	3567

If anything more pretentious is desired, menu No. 5 may be suggested.

No. 5 MENU FOR FAMILY EQUIVALENT TO FOUR MEN AT MODERATE MUSCULAR WORK

FOOD MATERIALS	WEIGHT		COST	PROTEIN	FUEL VALUE
Breakfast	lbs.	oz.	cents	pounds	calories
Cereal, Oatmeal	0	3	2½	0.029	350
Milk		6		.012	64
Sugar		2			232
Bacon		8	8	.046	1390
Eggs, 4		8	8	.065	322
Baked Potatoes	1	0	1½	.018	325
Buckwheat Cakes, prepared buckwheat		8	4	.034	780
Maple Syrup		4	3		327
Bread		8	2	.048	603
Butter		1½	3		225
Coffee			3½	.010	410
Total			35½	.262	5028
Dinner					
Bouillon	1	0	15	.020	45
Roast Lamb, leg	1	8	30	.228	1282
Mashed Potatoes	1	0	2	.018	325
Cucumbers	1	0	3	.009	52
Green Peas, shelled	1	8	6	.072	382
Macaroni		4	4	.029	410
Cheese		3	3	.049	369
Fruit Pudding					
1 cup flour		4	9	.028	410
Sugar		4			465
1 egg		2		.016	81
½ cup milk		4		.008	81
1 cup fruit		8		.013	817
Sauce for Pudding					
1 egg		2	5	.016	81
½ cup milk		4		.010	102
½ cup sugar		4			465
Bread		6	1½	.036	452
Butter		1	2		217
Tea or Coffee			3½	.010	410
Total			84	.562	6446
Supper					
Chicken Croquettes					
Chicken meat		8	18	.114	250
Flour		1		.007	103
Onions		1		.001	13
1 egg		2		.016	81
Bread		2		.012	151
Lettuce		8	3	.005	42
Bread		8	2	.048	603
Butter		1½	3		325
Cake		6	3	.026	619
Berries	1	0	8	.010	175
Chocolate, or Cocoa, with milk, sugar and cream		1½	5	.030	625
Total			42	.269	2987
Total Per Day			161½	1.093	14461
Total for One Man			40	.270	3615

This menu calls for an expenditure of 40 cents per person and is perhaps more elaborate than many families would desire. It serves to illustrate however, the value of different articles of food in an ordinary diet.

In these menus, the largest single item is as a rule the meat for dinner. The amount of protein furnished by the breakfast and supper is small compared with the fuel value of the food. Consequently for dinner some meat is used which will furnish considerable protein, but not an excessive amount of fuel ingredients, otherwise the ration will be one sided. Beef, veal and fish give a large amount of protein as compared with the fuel value.

There is a general tendency, especially where there is a considerable variety of pastry and desserts, towards too large a proportion of fats and carbohydrates as compared with the protein. This can be obviated by the use of more and leaner meats, fish, beans, skim milk, buttermilk, and cheese. It is of course not important that each meal, or even the total food of each individual day, should have just the right amount of nutrients, or that the proportions of protein and fuel ingredients should be exactly correct so as to make the meal or the diet for the day well balanced. The body is continually storing nutritive materials and using them. It is not absolutely dependent any day on the food eaten that particuluar day.

It is required simply that the nutrients as a whole during comparatively short periods should be fitted to the actual needs of the body.

When it is desired to increase the amount of milk, it may be substituted for tea or coffee, or more milk may be used, and less meat, butter, or eggs. Roughly speaking, one quart of whole milk could be substituted for a pound of meat, a pound of eggs, three

ounces of butter. The replacement of meats by milk is illustrated in menu No. 4, in which a diet with a rather small quantity of milk, is so changed as to include a much larger amount. Thus at breakfast a pint and a half of milk is made to take the place of half a pound of broiled steak. For dinner a quart of skim milk is necessary, or a glass for each person unless some is used in the cooking.

In planning a well balanced diet it is necessary to consider several points. When any considerable quantity of fat or starchy food is used, there should be provided as well some material rich in protein, if economy is to be practised in the digestive process. Thus such combinations as bread and butter, liver and bacon, pork and beans have been found by experience to be advantageous, and when lean meats or fish are being used, such materials as rice, tapioca, sugar and butter are necessary in order to bring the fuel value up to the required standard.

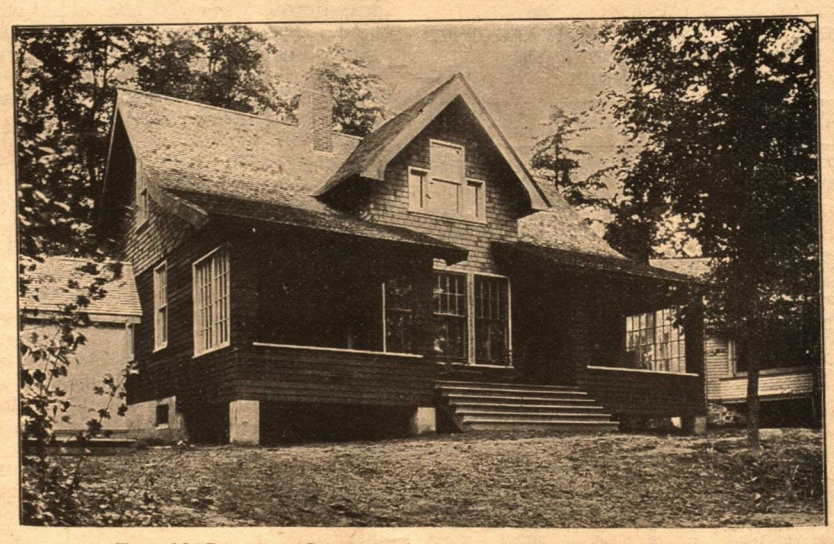
Milk may be used in many other ways as well. Various dishes naturally suggest themselves to every housewife and a very considerable variety may be provided. Among other ways in which milk may be used are the following:—

1. Porridge of all kinds made with milk instead of water.
2. Milk broths flavored with vegetable such as corn, peas, tomatoes, asparagus, onion, celery, etc., and with lobster, oyster, chicken, etc.
3. Milk flavored with tea, coffee, cocoa.
4. Frozen milk, egg-nog, milk albumen.
5. Rice, tapioca, sago, etc., baked in milk.
6. Custards, junket, gelatine pudding made with milk.

SUMMARY

Milk then is valuable as a food in tuberculosis:—

1. Because it is a well balanced ration.
2. Because it may be used in so many forms, either alone or in conjunction with other foods.
3. Because the quantity used may be increased or diminished with ease and without inconvenience.
4. Because it may be readily modified so as to contain larger or smaller quantities of its different ingredients.
5. Because it may be so readily substituted for water in cooking, with very evident advantage.
6. Because it is a comparatively cheap food.
7. Because it can be used continuously for a long period.
8. Because its products, butter, cheese, skim milk, butter milk, etc., are in themselves valuable foods.
9. Because it is very digestible.
10. Because it can be easily procured by all classes in almost any locality.



THE MCCORMICK COTTAGE (THE NEWEST COTTAGE BUILT).

Erected 1906, the gift of Thomas McCormick, London, Ont., in memory of the late Katie L. Pollock, daughter of Mr. McCormick.

This is one of the handsomest and most complete cottages on the grounds of the M. C. S. It is a two-storey building, with handsome reception room, seven bed rooms, closet, bath, etc.

The Disposal of Sputa

By Edith P. Jones, formerly Nurse-in-Charge Muskoka Cottage Sanatorium, Gravenhurst, Canada.

THE handling of secretions from the respiratory organs must, necessarily be not only disagreeable, but dangerous, unless the most rigorous care be exercised. Wherever there is abnormal secretion, there is cause for thoroughness in its destruction.

The first important point to note is that sputum must never stand uncovered; the next, that it must never stand until even partly dried. Given, that these precautions are closely observed, the care of the sputum is simplified. For the use of persons who expectorate, thongh following the ordinary occupations of life, the safest receptacle for sputum is the nickel or glass pocket-flask. Patterns such as the Dettweiler or Knopf may be unobtrusively used by arranging a handkerchief and an elastic band as follows: Place the bottom of the flask in the centre of the handkerchief, gathering the folds around the neck of the flask, and securing with the band. A little practice will make it possible to *appear* to wipe the lips, while in reality expectorating into the flask. To clean, empty contents of flask down sewer, or mix with sawdust, and burn, rinse flask and wash outside with carbolic acid 1-20. Boil the handkerchief. Occasionally boil the flask in solution of soda carbonate, first removing the rubber washers, which should be soaked in carbolic acid 1-20. Paper pocket-flasks are clean, convenient and easily burned, but their greater ultimate cost is against their use.

The open cuspidor in the halls of public buildings, while a most useful article, is often a menace to people who frequent such places. Cuspidors having a spring cover should be provided, on a stand high enough for the average man to stoop over comfortably. This would lessen the danger of the expectorated matter alighting outside the cuspidor, and would also prevent flies and other insects from having access to its dangerous contents. Flies may carry on their feet or wings sputum containing tubercle or other bacilli, and may alight on the meats or vegetables or other foods set out for display in the grocer's window. Or, they may ingest the sputum on the edge of an open cuspidor, and deposit the infected excreta in any place, where it soon becomes "dust"

For hospitals and sanatoria the well-known Seabury and Johnson cup, made of tin or aluminum, and holding a heavy paper lining, is most useful. In removing the inner cup, handle with a wisp of paper, wrap in two thicknesses of paper, tie with string, and place right side up in the bucket for soiled dressings, which are, of course, to be burned. Boil the outer cup or wash with carbolic acid 1-20.

For patients confined to bed the most desirable is the pressed paper cup with cover. The edge of the cup is sharp so that strands of saliva can be cut from the lip. The whole cup is burned. Small pieces of old cotton (preferable to linen), used once must be burned before dry, as also tissue paper handkerchiefs. An ordinary paper bag, used to collect such pieces, may be rolled *from* the bottom as it is filled, to prevent the contents being uncovered, each time the bag is opened. If moisture penetrates through the bag, burn at once.

Do NOT use any of the following: (1) *Open* cups containing a solution of bichloride of mercury or carbolic acid. They can be easily upset, and the contents will readily evaporate or decompose, especially in hot weather or in a dry climate. (2) *Open* cuspidors containing a like solution, on the floor by the bedside. The patient may not lean out of bed far enough to escape spoiling bed or floor with sputum. For thick sputum the only sure method of destruction is by fire, as bichloride of mercury or carbolic acid tend simply to coagulate the mucus covering all sputum, thereby preventing any penetration of the disinfectant to the contained bacilli. The person who expectorates can learn to have the tenacious, yellow sputum loosened from sides of mouth before spitting. Also, he can spit carefully so that his flask is not soiled. To dissolve mucus use a solution of salt or soda carbonate. A small covered box of thin sheet-iron, made to hold a paper cup of sputum, can be laid in the fire, and the contents thoroughly destroyed if the box remain red-hot a short time. All instruments used for nose or throat treaments should be boiled.

Discharges from the nose and throat in cases of tuberculosis, postnasal catarrh, bronchitis, influenza, pneumonia, meningitis and syphilis, must be regarded as highly infectious. Could all these discharges be properly cared for, the diseases which are caused by the organisms they contain would markedly lessen or even entirely disappear.

A WISE MOVE

F. W. James, Bridgeburg, Ont. "Enclosed I hand you money order for $10.00 to be used for the maintenance of the Muskoka Free Consumptive Hospital. I note that you propose publishing a paper, Out-Door Life. This, I believe, is a step in the right direction. The public cannot be too fully informed on the means of prevention."

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.

ADVERTISEMENTS accepted only from reliable firms. Advertising rates upon request.

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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.

THE TEACHER AND TUBERCULOSIS

IT is understood that Dr. R. A. Pyne, Minister of Education, has under consideration the framing of regulations, and the adoption of legislation, if necessary, that will tend to prevent the spread of tuberculosis in the schools. The advisability of including lessons on the subject in the school textbooks is also being considered. The regulations may provide for more uniformity in respect to the medical inspection of teachers and pupils, particularly in sections where tubercular diseases are known to be somewhat prevalent.

The idea originated with Dr. J. H. Duncan of Chatham, a member of the Board of Education there, and a specialist on tubercular diseases, who has for some length of time advocated such action as that mentioned. The death rate among teachers, it is said, is an exceedingly high one. Next to stone cutters, more of them die from phthisis than among those of any other profession or trade. The confinement of the schoolrooms and the vitiated atmosphere are largely responsible. The pupils are also, of course, affected by the last two named causes, hence the desire, in view of the constantly increasing ravages of phthisis and tubercular diseases generally to adopt some plan of aiding to counteract it.

CANADIAN OUT-DOOR LIFE has on several occasions dealt with this question. The records of the Muskoka Homes for Consumptives show, as Dr. Hunter indicates, that many teachers and scholars are afflicted with this dread disease.

The opportunities of the teacher to inculcate lessons on right methods of living can hardly be over estimated. In OUT-DOOR LIFE of February we republished from the Educational Record, Quebec, with comments, an important article suggestive of what was likely to be undertaken by the Educational Department in that Province, and in an earlier issue we told of an educational move in connection with the schools of Montreal City along these lines. Ontario should not be behind in this work.

REMEMBERS OTHERS THOUGH HERSELF A SUFFERER

MRS. THOS. MARTYN, Douglas, Ont. "Having been crippled with rheumatism for thirty years, unable to walk or attend to myself in any way, and wishing very much to do something to help the Muskoka Free Hospital for Consumptives, I have made this quilt. It is not much, but a little sewing is all I am able to do. Will you kindly let me know if this reaches you safely."

Cleanliness as a Condition of Health.

THE uses of clothing as promoting cleanliness and good health may be further considered in relation to undergarments. These should be of material which permits of free access of air to the person, and encourages transpiration through the skin. Such garments must not be closely woven; they should be porous, soft and smooth. Let the person be enclosed in a covering of confined air rather than of solid material, if warmth, comfort and cleanliness would be secured. Air is the best non-conductor of heat to or from the body, and clothing should be such as best confines the air. We cover our ice with sawdust rather than sand, our steam pipes with asbestos or mineral wool, only because these substances hold within them large quantities of air which prevent the transmission of heat. For the same reason loose fitting garments, and especially loosely woven ones, are warmer in winter and cooler in summer than closely woven ones can be. And yet we are not strongly impressed with the virtues of woollen undergarments. They are apt to irritate the skin, and are difficult to wash without rendering them hard and shrunken. The linen mesh seems to us to be an ideal undergarment for summer, though silk mesh or silk crocheted is more comfortable for winter wear. Either of these confines the air, absorbs moisture, keeps the skin dry and warm, and will bear any amount of careless washing without serious injury.

And frequent washing of underclothing is very important—not less than once a week. But no undergarment should be worn both night and day. A complete change every night and morning is very important. Let the undergarments of the day be hung up and thoroughly aired every night, and be replaced by dry, clean night gown of cotton or linen mesh, as the case may be. In the morning it may be again worn, and the night gown left to a thorough airing.

The amount of distribution of the clothing worn is also worthy of consideration. People are apt to clothe the trunk of the body excessively, notwithstanding its greater bulk easily retains its heat, while the extremities, especially the lower, are insufficiently clad. The consequence is that contraction of the blood-vessels for want of heat, occurring at a distance from the centres of circulation, seriously interferes with good circulation, vigorous function and good health. Cold contracts blood-vessels and heat expands them, and weakness follows both conditions. Too much blood in a part prostrates the organ and obstructs its functions; too little blood also enfeebles and prostrates; when there is too much blood in some parts and too little in others, general, as well as special weaknesses are the result. The trunk of the body is apt to be kept too warm, whereby it retains too much blood, all of which induces obstructed circulation and weakened nutrition. Unbalanced circulation is the really tangible condition in all diseases; to restore balance to the circulation is the obviously important treatment. The application of heat or cold, or better still rubbing and manipulation to contract or relax blood-vessels, becomes, therefore, the sine qua non to all successful treatment. Clothing is an important adjuvant. To heat the trunk of the body while the lower extremities are cold; to cultivate chamois vests, fur mufflers, heavy overcoats, etc., and leave hands and feet poorly clad, is folly to the extreme. If one is cold let him warm his feet and hands; if he has difficulty of keeping warm, he needs not Yaeger undergarments or heavy coats but loosely fitting heavy shoes and overshoes. It may be that the arm and legs of his garments need to be doubled, but chamois vests and other such contrivances to prevent colds are not recommended. Here again the real and the apparent are exact opposites. Nothing so provokes to pneumonia as the attempts of people to prevent it. Close rooms, protection against drafts, chamois vests, heavy woollen shirts, all of which increase the retention of heat and, therefore, of blood in the central organs, promote pneumonia, consumption and other chest ailments, which consists primarily of excess of blood in the parts affected. We shall see in the proper place that hemorrhages, apoplexy, congestions, all illustrate the same principles, and are to be prevented or cured by corresponding treatment.

THANK OFFERING FOR A LOVED ONE

MR. E. T. D. CHAMBERS, Quebec, Que: "I have much pleasure, in answer to your appeal, in sending the enclosed cheque for $5.00 for the Muskoka Free Hospital for Consumptives on behalf of my wife and myself. We regret that it is so small, for the desire to assist in so splendid a work is strong, and the amount seems so insignificant considering that it is desired to be a thank offering for the improvement in health of a dear one, as well as for a memorial of one who departed this life on Xmas Day, 1895, 'In the sure and certain hope of a blessed resurrection.'

VALUE OF SANATORIUM TREATMENT

Forty-three Ottawa cases cared for at Muskoka Free Hospital for Consumptives and Toronto Free Hospital for Consumptives.

THE STORY TOLD IN ANNUAL REPORT OF J. A. MANUEL, ESQ., PRESIDENT OTTAWA ANTI-TUBERCULOSIS ASSOCIATION.

An object lesson for other municipalities.

AT the time of the last report, says President Manuel, the Association was using two shacks for its patients at Gravenhurst, with the prospect of the erection of a pavilion, from moneys subscribed in Ottawa, to be known as the Ottawa Pavilion. Early in 1906, negotiations between the Gravenhurst authorities and the Ottawa Auxiliary took place, which led to the latter abandoning the idea of erecting a pavilion, and instead, after consulting the subscribers, accepting two wards in the main building of 8 beds each – one for male and one for female patients, to be known and marked as Ottawa Wards, and in addition the use of two other rooms, for very sick patients, those taken with hemorrhage or requiring isolation, the great benefit from the substitution being that the patients would be more directly under the supervision of the medical and nursing staff.

Since the date of the last report, 31 patients have been sent to Gravenhurst and 10 to Weston. Of these 11 are still at Gravenhurst and 5 at Weston.

On the return of patients from these places they are put upon the list of the Visiting Nurse, who thus keeps in touch with them and renders them any assistance she may be able. All the cases on her list have been visited during the past month so that we might have recent information, and in the report which follows, the information from her is under the letter N., the Gravenhurst and Weston information being under letters G. and W.

GRAVENHURST CASES

CASE No. 1. G. An advanced case. Improved on discharge; outlook favourable. Gained five pounds. Capacity for work normal. Stay sixty-five days.

N. Did not return to Ottawa. Is understood to have gone back to father's farm.

No. 2 G. An advanced case, but improved on discharge. Future progress doubtful. Lost four pounds. Stay one hundred and twenty-two days.

N. Is a very good proof of what fresh air treatment can do. To look at her it is difficult to realize she was ever a fit subject for the Sanitarium, and we can safely class her as a perfect cure. She still spends some hours every day out of doors, does all the housework in her father's house and feels satisfied she is cured.

No. 3. G. An advanced case. Although here only three months and considered an advanced case on admission, was discharged with disease arrested and with a bright outlook. Capacity for work normal. Gained ten pounds.

N. Returned from Gravenhurst greatly improved and continued to follow out the same treatment at home, spending 6 and 7 hours outside daily. By her good example, a neighbor, who is also tubercular, was induced to join her in the fresh air treatment, and they can be seen spending hours together in the fresh air. Is still improving through the great care she is taking of herself.

No. 4. G. An incipient case. Discharged improved; Prognosis favourable; Sputum free from bacilli. Gained nine pounds. Complicated by hysteria. Stay one hundred and nineteen days.

N. Left Gravenhurst in June. Has been idle until about a month ago. Is in about the same condition as when left Gravenhurst, and until starting work carried out the fresh air treatment faithfully. Coughs very little, but is emaciated looking, probably due to want of good food when out of work.

No. 5-6. G. Are sisters, who remained on a few days. Home sickness seems to have over-ruled their discretion. Were incipient cases and would have done well.

N. Came home determined to carry out instructions given them. Both live on the outskirts of city and make a practice of rising early, so as to have as much time in open air as possible. During the summer months spent the whole day in the woods, and have been sleeping with bed-room windows open the whole year round. The result is, both are enjoying good health.

No. 7. G. An incipient case. Left the hospital much improved to work in Gravenhurst.

No. 8. G. In residence only one month. A far advanced case. Complication. Ulcer of the nose, disease stationary.

N. Died shortly after return.

No. 9. G. A far advanced case, with a very bad outlook, and who did not respond to treatment in the 74 days' stay. Had 4 serious complications, and was sent home to die among her friends.

N. Died in July.

No. 10. G. Was an advanced case on admission, but at the expiration of his term was able to do light work, so was put on the staff of the hennery. His progress has been uninterrupted, and he has gained eighteen pounds.

N. Was still at Gravenhurst on 15th March, 1907.

No. 11. G. As far as his tubercular lesion he was an incipient case. Complicated with lupus and heart disease. Died suddenly from hemorrhages of the brain, a condition entirely independent of his chest disease.

No. 12. G. An incipient case, with disease arrested on discharge. Has a bright outlook. Capacity for work undiminished. Gained 11 pounds. Left after 4 months' stay to continue out-door treatment with relatives in vicinity.

No. 13. G. A far advanced case. After 2 months treatment, the case was given up and she was sent back to her family.

N. Left Gravenhurst 14th September, died 25th of November.

No. 14. G. An incipient case, left with the disease arrested. Capacity for work normal. Thinking he was able to work, left Gravenhurst of his own accord.

N. Returned from Gravenhurst, August 22nd. Surroundings very poor; does not work steadily, takes a fair amount of fresh air daily. Helped by Association until about a month ago, when he moved out of the city. Improved while at Sanitarium, but I am afraid will not prove a very satisfactory patient at home.

No. 15. G. An advanced case but has made splendid progress. Will be discharged with disease arrested.

N. Left Gravenhurst in January. Did not return to Ottawa. When last heard of was visiting friends and did not intend to return to Ottawa.

No. 16. G. A moderately advanced case, who remained stationary during the 26 days' stay. Left because of some dissatisfaction with his financial arrangements.

N. Have not been able to trace him.

No. 17. G. Disease arrested on discharge, with favourable outlook. Gained sixteen pounds in two months.

N. Did not remain her full time at Gravenhurst. Since the beginning of the year, feels better and spends a good deal of time in the open air. Intends as soon as the weather permits to spend the late spring and summer up the Gatineau.

No. 18. G. Has made splendid progress; will be classified on discharge as disease arrested. Has been a desirable patient in every way.

N. Has continued to improve since leaving Gravenhurst, and carries out instructions received there, faithfully.

No. 19. G. A far advanced case. Remained only fifteen days. Complicated with other troubles.

N. Died August, 1906.

IN RESIDENCE AT GRAVENHURST NOW

No. 20. G. An incipient case on admission, but almost a nervous wreck. Improvement within the last three weeks has been very marked. Time of residence extended.

No. 21. G. An advanced case who came to us over 3 months ago, in a very weak condition, so weak, in fact, had to be kept in bed some six weeks. Since that time has made remarkable progress, having gained regularly and rapidly in weight. Time of residence extended.

No. 22. G. An incipient case who has been with us some six weeks and has made steady improvement in every way.

No. 23. G. An advanced case on admission, who has had not a few set-backs of late, is making rapid and steady progress back to strength again, so much so that he is now on moderate exercise.

No. 24. G. An advanced case who has been admitted for a second term and has now been with us a month. Progress quite satisfactory, and has already reached the stage of comparatively active exercise.

No. 25. G. An incipient case on active exercise from the start and is still doing exceptionally well. Has been here about a month.

No. 26. G. A far advanced case on admission. Has been here six weeks, and has been in bed nearly all that time but condition improved to that state where he can now with safety be placed in open air, and every condition is hopeful that he may get very much benefit by his stay here.

No. 27. G. A moderately advanced case, which has made satisfactory progress in the short time he has been here.

No. 28. G. A moderately advanced case, who has been with us about three weeks, two weeks of which have been spent in bed. During the last few days has begun to feel better, and improvement is perceptible every day.

No. 29. G. An incipient case—been with us only ten days but improvement is visible.

HER LIFE SAVED

From one of the returned Gravenhurst patients the following letter was received a few days ago:

"I was a patient at the Gravenhurst Sanitarium for four and a half months and I am pleased to report to you that the disease was completely arrested by my stay there. I have been back at work for two years, and I am entirely better and able to do hard work. Before leaving I was a patient at the County of Carleton Hospital in Ottawa, at which place my disease was diagnosed by the physical signs present, and by the germs in the sputum. During my stay at the Sanitarium I was the recipient of every kindness from the physicians and nurses and I feel deeply grateful to your Association, as I consider my life was saved by the Sanitarium treatment."

WESTON CASES

CASE No. 1. W. Has been in hospital for twelve months. Was a far advanced case, made considerable progress, but by his own foolishness brought on several hemorrhages and is not yet in a condition to be discharged.

No. 2. W. Has been in hospital for nearly twelve months. Condition satisfactory, and may now be discharged.

No. 3. W. Died after four months stay in hospital.

No. 4. W. Remained only one day in hospital.

No. 5. W. A far advanced case with several complications. Died after six months residence in hospital.

No. 6. W. Very far advanced—died fourteen days after admission.

No. 7. W. Has been six months in hospital, and is much improved,

No. 8. W. Remained in hospital one month, was discharged improved.

N. Is now being cared for in Ottawa, and is much improved.

No. 9. W. Has been here four months, but is not improving.

No. 10. W. Came here in January, and is improving.

It must be borne in mind the cases sent to Weston are far advanced.

Through the nurse the Association has also kept in touch with the cases sent to Gravenhurst and Weston during 1905. Of the thirteen cases sent to Gravenhurst, five have died, five have left the city, and three are attending to their duties, and of these three, one is a particularly gratifying case. She returned from the Sanitarium two years ago, and has had no symptoms of Tuberculosis since; the other two are quite holding their own, but under unfavorable conditions of life. Of the four sent to Weston, two have died, one has gone to work in another city, and one is still in Ottawa, greatly improved—attending daily to his duties and exercising care.

VALUE OF OUT-DOOR TREATMENT

From a perusal of the nurse's reports, it is evident her visits are welcomed, that there is a manifest desire to carry out instructions, that it is becoming better understood that consumption is not necessarily a hopeless disease and that if instructions are followed and care is exercised there is hope for the sufferers and no great danger to those closely associated with them.

Some interesting results of the use of the fresh air treatment are also met with. Her reports on this are as follows:

CASE No. 1. A woman of about forty years of age, whose four brothers and two sisters died of pulmonary tuberculosis. A year ago this patient noticed symptoms very much like those shown by her deceased brothers and sisters, and feeling nervous about herself immediately took advice from her physician. On examination he found her right lung diseased and advised fresh air treatment. On each visit I found her carrying out instructions faithfully. She could not leave home, but slept in a tent erected in the back yard, braving the cold until late in the fall. She has her reward, for to-day she feels as well as ever she did, and athough still following the treatment considers herself cured.

No. 2, 3. Are sisters. One was considered very far advanced in the disease. They were sent to the Sanitarium together, remained there long enough to learn the benefit of fresh air, and came home determined to carry out instructions given them. They both live on the outskirts of the city, and during the summer months spent the whole day in the woods, have slept the whole year round with their bed-room windows open: the results are, both are enjoying good health. One considers herself cured, and the other is certainly greatly improved, and has every reason to hope she will be spared to her family for years to come.

No. 4. Is that of a young mother. About eighteen months ago she had several hemorrhages from the lungs. It was some time before she could be persuaded to live in the fresh air, but by constant advice she at last was induced to spend most of the day out of doors. By spring she was strong enough to leave home for the country, where she spent last summer until late in the fall. She is still at home doing her own household work, but still devoting hours every day to the fresh air cure, and she fully believes she owes her improvement to following out the advice given to her.

No. 5. Is a child of about ten years. He was a poorly nourished delicate-looking child, and the family physician pronounced him in the first stages of Tuberculosis. On advice, his parents kept him out of doors most of the time. Gradually the little fellow began to play about like other children of his age. At present he is full of vitality, has increased in weight, and in no way resembles the delicate-looking child of a year ago.

No. 6. A patient who was sent to Gravenhurst for a limited period. She returned home greatly improved and continued to follow out the same treatment at home, spending six and seven hours outside daily. By her good example, a neighbor, who is also tubercular, was induced to join her in the fresh air treatment, and they can be seen spending hours together in the open air.

No. 7. Is that of a mother, worn out from nursing her daughter, who died from Tuberculosis about a year ago. The mother was told by her physician she was in great danger herself, in fact, needed every precaution. The Association lent her a tent last spring, in which she slept until late in the fall. At present, she is well enough to go out working and says she feels no symptoms of what she felt last spring.

FUMIGATION OF HOUSES.

The Visiting Nurse has continued to inform the Health Officer of houses where death has taken place from Tuberculosis and also of cases coming under her notice where a person suffering from tuberculosis has moved from one house to another. These latter could not otherwise come under the notice of the authorities, and the value of the fumigation is so obvious as to require no comment. Where death has taken place outside the city limits and no official provision is made for fumigation, the Nurse advises its being done and gives the needed instruction how to proceed.

CONSUMPTIVE IMMIGRANTS.

Three cases of this kind have recently come under the notice of the Association. Two are being cared for by the Association, one at Gravenhurst and one at Weston, and the other, after refusing to go there unless his family were cared for as a family—provision having been arranged for the children in homes—the matter having been brought to the attention of the Immigration Department, has been returned to England, proper provision being made for his and his family's transport.

Such is a summary of the work done by the Association since the last annual meeting. The Executive feel because of the difficulties referred to they have not done all they could have wished. At the same time, they believe an amount of good has been done. Much useful instruction has been given, the value of which becomes manifest daily, in the increased care with which those suffering from Tuberculosis have acted, and in the readiness in making use of fresh air. Many cases of suffering and misery have been relieved and not a few have been taken from surroundings which were most undesirable for themselves and in which they were a danger to others.

NOW A PATIENT IN THE HOSPITAL.

A Poor Girl—Practically Alone in the World.

REV. HERBERT FEAVER, Glace Bay, Cape Breton, writes:—I have a girl of 17 years, who has developed consumption, and the doctors are very anxious to have her go to a sanatorium, as it is the only chance of saving her life. She is practically alone in the world, her mother being dead and her father married again to a widow with six children. The poor girl told me on Friday that she was not wanted at home. She had gone out to work as a servant, and the doctor ordered her home. Will your Sanatorium take her in? Kindly let me know what you will do for the girl.

Contributions to help in this case—the patient being absolutely free—will be received by Sir Wm. R. Meredith, Kt., Osgoode Hall, Toronto, or W. J. Gage, Esq., 84 Spadina Avenue.

PROBLEM THE TRUSTEES FACE

WHAT IS TO BE DONE WITH THE MANY SEEKING ADMISSION TO THE MUSKOKA FREE HOSPITAL FOR CONSUMPTIVES? BOTH INSTITUTIONS AT MUSKOKA CROWDED.

NEVER in the history of the National Sanitarium Association has the call for accommodation in their two institutions at Muskoka reached such figures before. At the Muskoka Cottage Sanatorium, the pay institution, established in 1896, the largest attendance of patients on record was passed in March and April. Under the direction of W. B. Kendall, Phm.B., M.D.C.M., L.R.C.S., Physician-in-Chief, and Miss Addah Strouse, late of the Adirondacks Sanatorium, Sarnac, N.Y., Lady Superintendent, a big houseful of happy and contented patients is to be found, embracing a constituency representing every Province in the Dominion, and many different sections of the United States.

But what of the Free Hospital? The place this institution fills in the Dominion, its absolute necessity, if the lives of our people are to be saved from this dread disease, consumption, is illustrated in the two following letters—two out of the many received daily at the Head Office of the Hospital, Saturday Night Building, Toronto.

> REV. E. J. BIDWELL, M.A., Lennoxville, Que. :—"I am anxious to get a poor fellow suffering from tuberculosis into the home in Muskoka. He has, I understand from his doctor, some chance, if he can get the cure and attention, which, being a poor man, he cannot get at his home. He is a gardener of excellent character and has always been a hard worker. I would be glad if you would tell me what steps are necessary in this matter."

> PERCIVAL J. DODD, Parry Sound:—"Could you tell me if there is any possibility of my being admitted to the Muskoka Free Hospital for Consumptives. I am only a poor man and unable to pay for treatment at the other Sanatoria. I am 32 years of age and living in a boarding house. I shall be very grateful if you can admit me."

Be it known that no patient in residence pays the cost of maintenance; more than one-half pay nothing whatever, and those who do pay, do not average 50 cents a day. The cost of maintenance is over $9.00 a week—including medical attendance, nursing, board, food, laundry, etc.

You see almost without any figuring how large must be the deficit every month with an average of 70 patients in residence.

Not a single applicant has ever been refused admission to the Muskoka Free Hospital for Consumptives because of his or her inability to pay.

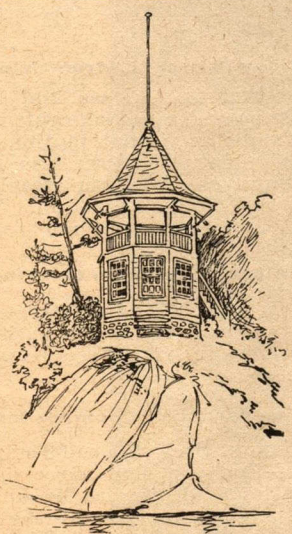
At the State Charity Hospitals in Massachusetts, New York, and other states, and in the Provincial Sanatorium in Nova Scotia, described in these columns last month, all patients must pay $5.00 a week and the State or Province makes up the difference, which is more than another $5.00 a week.

Here only $1.50 per week per patient is received from the government. A philanthropic public must make up the deficit—or else suffering ones be without a place to go—for where else can they go?

The general hospitals of the country refuse the consumptives. The Muskoka Free Hospital for Consumptives is the only hospital in Canada that accepts patients from any part of the Dominion.

SURELY THIS IS
THE PEOPLE'S BURDEN.

Contributions may be sent to Sir Wm. R. Meredith, Kt., Chief Justice, Osgoode Hall, Toronto, or W. J. Gage, Esq., 84 Spadina Ave.



SUN PAVILION AT THE MUSKOKA COTTAGE SANATORIUM OVERLOOKING THE BAY

Many Societies Help the Consumptive.

A Few Letters Taken From the Secretary's Fyle—Everyone Can Help Some.

An Oddfellow's Cot.

W. B. GRIEVE, Sec'y Napanee Lodge, I.O.O.F.—Please find enclosed express order for $5.00, being the amount donated to the Oddfellows' Cot at the Muskoka Free Hospital for Consumptives by Napanee Lodge, No. 86, I.O.O.F. With best wishes in your good work.

Canadian Foresters Give $15.00.

A. S. ROYCE, R.S. Court Bruce, C.O.F., Walkerton.—Enclosed please find express order for $15.00, being amount donated to the Muskoka Free Hospital for Consumptives by Court Bruce, No. 56, C.O.F. Wishing this noble institution every success in its noble work for suffering humanity.

Masons Contribute.

J. H. MCLEOD, Sec'y A.F. & A.M., Bothwell.—Enclosed find order for $5.00 subscription of Star of the East, No. 422, A.F. & A.M. to Muskoka Free Hospital for Consumptives. Wishing you every success in this most worthy cause.

Sunday School Children Help.

WALTER BUTTLE.—Please find enclosed the sum of one dollar and six cents in postal note or stamps as a contribution for the maintenance of the Muskoka Free Hospital for Consumptives, from the teacher and scholars of S.S. No. 5, Admaston. Wishing you every success with your noble work.

Ottawa School Children Contribute.

SOME TEACHERS of Kent Street School, Ottawa, take pleasure in contributing seven dollars to the Muskoka Free Hospital for Consumptives.

Sons of Temperance Remember the Work.

ED. F. NIXON, Sec'y Sons of Temperance, Ashgrove.—Enclosed find three dollars, a small donation made to the Muskoka Free Hospital for Consumptives by the Hornby Division, No 216, Sons of Temperance. Wishing you and your good work every prosperity.