

British Columbia's Fight Against the White Plague

UNDER the authority and direction of the Provincial Government there have just been issued two highly instructive pamphlets dealing with the scourge of consumption and modern methods of combatting its ravages. They are herewith reproduced in extenso. The second contains some advice to children, couched in language easily understandable by those to whom it is especially addressed. The Government of British Columbia is displaying an enterprise and interest in this matter not equalled by any other provincial administration in the Dominion. The first pamphlet reads:

"Quis Custodiet Ipsos Custodes?"

This old Latin aphorism has been recently employed—as well as it might be—by one of the foremost leaders of the legions of learning, in approaching a duty similar to that which, here in British Columbia, the present juncture seems to demand. Given a somewhat free translation, it may be read: Who shall teach—who shall presume to teach—our teachers?

Notwithstanding a feeling of diffidence in undertaking the task, confidence and inspiration return from appreciation of the fact that it is no pose of the pedagogue, but a mere message to humanity, with which it is sought to engage your attention in the following passages—the message of outraged nature in its most vengeful mood.

Tuberculosis—consumption, as it is commonly called—is the subject of this address. The greatest scourge that has ever, in the world's history, beset the pathway of "suffering, sad, humanity." More deadly, more cruel in its terrible sway, than the united sum of all other infectious ills that human flesh is heir to. Complex and subtle though it may seem, it is in reality the exact measure and method of nature's swift revenge for the defiance of her laws of sanitation and hygiene, and the adoption of unnatural and unhealthy conditions of life.

Until within comparatively recent times, this fell and fecund source of human loss and suffering has been fostered by the forces of ignorance, prejudice and apathy; romance has hallowed it and fiction claimed it for her own; until in the mind of the masses it became a thing spoken of as "inevitable," "hereditary," or "the will of God." In the world of today, however—thanks to the march of intellect and the searchlight of science—a period of sanity and common sense has supervened, and all the forces of knowledge, of thought and of science, are awake in all lands, and all civilized peoples and Governments are strenuously alert and allied in one strong combined effort for the immediate control and eventual eradication of the disease; an effort based upon similar principles to those successfully employed for the extirpation of other malignant maladies.

In this prosaic, commercial age, the practical and economic side of this gigantic problem is naturally uppermost. Note, then, these figures:

In Canada, statistics show that 8,000 lives are annually sacrificed from this preventable cause. That, at a very low estimate, at least 40,000 individuals, annually, become infected with the disease. That the consequent economic loss to the State, by these deaths, is \$48,000,000; and the further loss, through reduced productiveness of the infected, is \$24,000,000; making a grand total annual loss to the finances of the country of no less than \$72,000,000.

These official statistics, as to the existing cases, are based upon calculation of five cases of infection to every fatal case. In no other country has the figure been placed at less than ten. In densely populated centres in Europe and America the average reckoned has been as high as twenty.

In British Columbia, we are not yet in a position to estimate the exact extent of the evil. What we do know, however, from the measures already adopted to cope with the disease, is this disquieting fact: that it is alarmingly prevalent and under conditions which favor the spread of the trouble.

Called upon as a body to debate in conclave as to how a danger so imminent shall be met, the first question that naturally arises is—What do we know of the malady? The answer is this: We know just ten things concerning it.

1. We know the germ—the Tubercle Bacillus—the cause, and the only one; for without this germ there cannot be consumption.
2. We know whence it comes, namely, from two sources—
 - (a.) From the sputum of consumptives;
 - (b.) From the milk of tuberculous cows.
3. We know how it enters the body—
 - (a.) It is inhaled with the dust, or
 - (b.) It is swallowed with the food.

Note.—The sputum of consumptives abounds with tubercle bacilli, in immense numbers. When spit about, or sprayed into the air in coughing, especially in rooms and places where fresh air and sunlight have not free access, these micro-organisms, in the moist state, mix with the dust, and adhering to the particles, when dried and disseminated, they may be inhaled in the atmosphere, retaining their virulent activity for long and indefinite periods.

4. We know what may happen after the entry of the germs. Some are secreted, carried off or stayed by nature's defensive en-

tanglements. Some fall victims to other friendly militant microbes. Some meet and succumb to the resistance of a strong and healthy constitution and vigorous habits of life. But to too many, alas, they come to stay; come as administrators of the law of the "survival of the fittest"; as avengers of "the sins of the fathers upon the children unto the third and fourth generation."

5. We know the conditions that encourage them; they are five—

- (a.) Hereditary weakness of constitution.
- (b.) Weakness, as the result of fevers or other enervating complaints.
- (c.) Bad food and consequent malnutrition.
- (b.) Bad air.
- (c.) Bad living, i.e., the undermining of the constitution by improper use of drugs, alcohol, tobacco and similar enervating agencies.

6. We know how to recognize the disease, and thus are enabled to treat it in its early and curable stages. This, indeed, is a great step; for it is a disease peculiar in every respect, but most peculiar in the variety of its manifestations.

7. We know how to cure the disease. On this point both professional pessimism and popular prejudice have had, at length, to give way; for cure it we can, if only we can get the cases early.

8. We know that it is not hereditary (although a state of the constitution favorable to the germ may be passed on from parents to children).

9. We know that it is entirely preventable, and that by means extraordinary for their simplicity.

10. We know how to prevent it, namely, by rendering the conditions of the body unsuitable for the propagation of the germ; by the influences of a wholesome, healthy life, and by such proper care and instruction of persons suffering from the disease as will render them harmless to those they live amongst.

Of the Tubercle Bacillus, its nature and its action, it need only be said, that it is not "an animal," as many suppose—it is a vegetable—and one of the lowest forms of fungus—you know the function of the fungi in the forest life around us. Its action is that of destruction—the disintegration of matter. So also is that of the Tubercle Bacillus.

The thing that has recently electrified the whole civilized globe is the belated revelation and realization of its appalling ravages, which, at length, have everywhere brought into action the first instinctive law of nature, the common law of self-preservation.

Lacking the gruesome picturesqueness of the plague, or similar sudden epidemic, and favored by many facilities, the disease has quietly pursued the even tenor of its way, unheeded and practically unchecked. But the facts of its record are, briefly, these:

In its ubiquitous destruction, no country in the world escapes.

The mortality for which it is responsible amounts, in Russia, to one in four of all deaths; in Germany, to one in six of all deaths; in Great Britain, to one in seven. Of all those persons who died in Great Britain during the past year, of the workers and producers, between the ages of 15 and 45, over one-half died of pulmonary tuberculosis.

In England and Wales, last year, 70,000 (seventy thousand) of the population succumbed to it. Think of it! It means that, day in, day out, every six minutes is marked by the loss of a human life from a known and preventable cause.

Is "appalling" too strong a designation?—What a well of human tears! What a cloud of witnesses!

The economic incidence of the disease, as compared with other diseases, is also a matter of supreme concern; for whereas, of other infectious diseases, the average age of death is 10 years, in the case of tuberculosis the average age is 33 years. At the age of ten the individual is, technically, a burden to the State. At the age of thirty-three he is at the zenith of his powers and activity and constitutes an important integral part of the commonwealth—the backbone of the nation.

These are depressing facts, but true. Looking on the brighter side, we find that, under the German sanitarium system, which forms part of an universal, compulsory, state-guided workers' insurance system, no less than 70 to 80 per cent. of the cases are eventually, wholly or partially restored to work as economic cures, and are enabled to earn at least one-third of their normal wage.

Similar good results have accrued elsewhere; and here in our midst, at the new sanitarium at Tranquille, which, by strenuous endeavor, has been recently inaugurated, the work, though carried on at great disadvantage and still in its infancy, has produced most encouraging results.

In this country, too, the prevailing natural conditions are greatly in our favor, notwithstanding the overheated and ill-ventilated dwellings in which many delight, and notwithstanding the habits of the workers and the risks they continually run, in the hot, crowded and unsanitary bars and bunk-houses which are prominent features of the land.

The point to be especially emphasized, however, is this: That it is no mere battle of experts and physicians, striving with an occult and technical problem. It is (or should be) the battle of a people fighting for their lives—and not theirs alone, but the lives of the little ones—the children, who are pe-

culiarly susceptible to infection. It is the battle of "the man in the street" against the known and defined forces of misguidance and misrule.

In the struggle of combined humanity with the Great White Plague, it is not by curative methods alone that men may hope to succeed. "Prevention," says the good old saw, "is better far than cure"; and to achieve prevention we must first have instruction—education.

The work of both missionary and teacher is mutually yours.

Speaking of the success of Sanatorium work, a great authority made this assertion:

"It is on the patient's mode of living, after his return home, that the influence of the Sanatorium treatment is most markedly and most beneficially exercised. Such patients greatly improve the hygienic conditions of their homes, as the result of their experience of Sanatorium life."

It is obvious, therefore, that what is needed is the education of the people to the point of self-protection—an education which will raise the general standard of domestic life.

It has been well said of the Tubercle Bacillus that "it is an index by inverse ratio of the real progress of the race." For it is not a bitter parody upon our boasted civilization?

It is here, therefore, that the missionary's work begins. To create public opinion; to beget popularity and enthusiasm in the cause. That is the goal towards which your energies must win. For the moment of popularity is the moment of success.

Nor is your mission to any one section of the community alone. There is hardly a trade, occupation, business or calling which has not contributed its quota of human lives in sacrifice to the "inexorable thing."

"The ravaging strength that neither spares nor feels." In other words, the law of natural principles, upon which is founded the fabric of human existence within this mundane sphere—a law immutable, implacable in offence; like "the laws of the Medes and Persians," it "altereth not."

The offence, that we exult at such terrific cost, may fitly be defined as man's betrayal of his fellow-men; of those who in submerged masses lie, prone and helpless, beneath the chariot wheels of power, of luxury and of greed.

Thus Schiller sings:

"Who sows the serpent's teeth let him not hope To reap a joyous harvest. Every crime Has in the moment of its perpetration Its own avenging angel."

In ghastly verity, the White Plague proves the wisdom of the poet's words.

Nor, in an age of infidelity, is the impellent cause remote; for well we know that the first evolution of man, upon relaxing his hold upon religious beliefs, veers ever towards the confines of cruelty and license, where the sense of duty wanes. It is the common pathway down which, throughout the ages, civilizations before us, great as is our own, have passed towards oblivion or decay.

We have dealt fully with the logical and economic phases of the subject; let us raise but a corner of the veil, for one brief, anxious glance at the hidden, silent side.

It is a pathetic picture, which might well appeal to harder hearts than ours.

Infants absorbing death germs with their mother's milk. Parental kisses poisoning the lips of the little ones. Children infected with the classroom dust or snared with fair-seeming sweetmeats from the stall. Students, teachers, authors and divines breathing in dread microbes amidst their dusty tomes. Workers in shops and factories re-breathing the impure air, infected by their fellows. Belles of the ball-room wearing the dainty things over which some poor sweated woman, perhaps, has coughed her life away. Rich and poor, Dives and Lazarus, linked together, inextricably bound, in the levelling presence of a common curse.

No feature of our vaunted culture but this dread terror reaches; no precinct so sacred but its silent footsteps dares; no home so guarded, but its gaunt shadow falls. For at palace portal and cottage door alike, the "Captain of the men of Death," impartial, demands his toll. Think what the loss to this grim world has been, in art, in letters, in poetry and in song, from what might easily not have been. Think of the "hearts still pregnant with celestial fire" that in this black holocaust lie hid.

What, then, you will ask—is the solution of a problem so enormous? What can we do to save and be saved?

The answer is this:

Pathological science, the detective department of physics, is nobly fulfilling its appointed task. The issue is now a live one throughout the nations of the world. Cities, towns and villages in Europe and America—and largely too, in Canada—are up and doing. Every effort is being made to check and, if may be, to stamp out the disease which decimates the people. Everywhere there are indications of encouraging success. What remains to be done is to prevent it. To stay and restrict the area of infection to existing limits, and thus to combat it upon its own ground.

In this, our national dilemma, it is to the Clergy and the Teachers we turn.

We are honored, as a society, by the gracious patronage of His Majesty, the King. His Honor the Lieut.-Governor has generously aided the campaign. The assistance and sup-

port of the Provincial Government, its Ministers and the municipal and civil authorities is ours, and prominent citizens, too, have lent us their aid and energy; but still, it is to you we look for that radical reformation which shall turn the tide and prove the salvation of the generations to come.

One of our first pre-occupations must always be, the safeguarding of the children.

Placed at the centres of knowledge and information in their several districts, capable and practical, as members of the learned professions, vested with authority and commanding respect, the preacher and teacher are specially fitted to deal intelligently with this delicate task, where tact and firmness go hand in hand. As missionaries and apostles of hygiene, to convince the people of the necessity of altering their ways, no other class of men and women could do so much in their respective spheres as the school teachers and the ministers of religion; and, if in combined agreement these two great forces join, mutually to employ and apply the facts revealed to recent scientific research, the days of this trenchant evil would indeed be numbered in the land.

The onus of responsibility is great, but great in proportion to our confidence in them. That their public spirit will stand the test, there is no room for doubt, or that a sense of duty will actuate them in fighting the forces of ignorance and disease.

It is with a feeling of confidence, therefore, and keen appreciative expectancy, that we look to them, trusting in their pluck and ability to face the position in a manner befitting the honorable callings to which they belong, and thus, with honor to each one, to play a prominent and a noble part in this great and world-wide campaign of culture, which stands pre-eminent, as the greatest and strongest combined economic effort in the history of the races of men, the greatest humanitarian movement that the world has ever known.

Suggestions to the Teachers

It would be manifestly of benefit, if not already in vogue—

That distribution of printed information, on the subject of the Tuberculosis campaign, in addition to the instruction orally delivered, should be made as freely as possible, amongst pupils, their parents and their friends.

That the young should be taught habits of good health, rather than the peculiar mechanism of the disease.

That during exercise and singing, abundance of fresh air should be admitted.

That the open-mouthed attitude, peculiar to many children, should be checked and discouraged, as much as possible, and inhalation through the nose inculcated instead.

That school-rooms should be disinfected periodically.

That dry sweeping with brooms should be promptly stopped and the use of the mop and damp duster substituted in their stead. Where sweeping is found absolutely essential, wet sawdust should first be sprinkled freely on the floor.

That children should be taught to be careful in their own persons and careful in regard to others.

Encourage physical self-respect.

Advice to the Children

What is consumption? It is a form of sickness due to the growth of a tiny fungus in some internal part of the body.

The name of this plant is the Bacillus Tuberculosis, or Tubercle Bacillus. It is a germ or microbe. "Germ" means "seed," the seed of disease, and "microbe" is the term used to describe the minute forms of living things visible only under the microscope.

In size, it measures about a twelve-thousandth part of an inch.

Like all the plants you know, it cannot grow or multiply, except in the right soil or substance, and with suitable surroundings.

The fungus that you see on trees belongs to the same family, only it is a bigger kind. You never see fungus grow on healthy trees, only on diseased or rotting ones. The more diseased or rotten the tree the quicker the fungus spreads.

Its action is to destroy unhealthy trees, by eating away the fibre of which they are composed.

Just in the same manner, in the human body, the Tubercle Bacillus, which you may inhale, or draw into the body, any time, with the dust, in breathing, or swallow with your milk, or food, may settle in some weak, unhealthy or injured part, or in the soft inner tissues of the nose, mouth, or glands of the neck, or in the lungs, and, unless you are careful, may take root and grow there, and produce what is known as "Consumption."

It is right that everybody should know this, in order to protect themselves, but there is nothing about it that need frighten you, for you are protected by nature in a hundred curious and wonderful ways, which it is unnecessary to explain to you now. One thing I will tell you, however. These microbes get into the bodies of nearly everybody, at some time or other, but there are millions of little cells, called "corpuscles," in our bodies, which work like the valves, or suckers, of the devil fish, or octopus, that you all know; and these corpuscles are always busily engaged in enclosing and carrying off these dangerous little plants. All that you have to do, to protect

yourselves, is to help them. The fungus, as you know, grows best and thickest in dark, damp or dusty, unwholesome places, where the air is close and stuffy and no sunlight comes. You will find it in wells and cellars or under old shacks and barrels. It cannot live where there is plenty of sunlight and fresh air, or in places that are kept clean and sweet and open to the refreshing breeze that wafts away bad air. For the air we breathe in living rooms, and especially in sleeping rooms, soon becomes bad and poisonous unless frequently and regularly renewed. The body quickly absorbs, or drinks up, all the good part of it as it passes through our lungs in breathing; and so, fresh, clean air must come in freely and constantly from outside, to drive away the bad. Here, then, is the great secret of good health; and if you want to feel always fresh and lively, and active, strong and happy, you must remember this and always demand plenty of fresh air and open windows in your homes, in your schools, and wherever you may be. If you do this, the Tubercle Bacillus will have a hard fight to get the better of you; for it will find no suitable ground within you to grow upon.

Now, for your greater safety, I will tell you a few little things that you are not to do. We will call them

The Two Dozen Don'ts.

First and foremost of these is—

1. Don't spit about. Why? First, because it is a filthy habit. Secondly, because it is a dangerous habit, and your doing so encourages others to follow your example.

It is dangerous, because microbes swarm in the spit of many people, without their knowledge. Therefore, don't spit, lest you should give disease to others, and prevent others spitting, if you can, lest they should give disease to you.

We don't know the origin of the Bacillus, or whence it originally came, but we do know that, in the spit of the consumptive, it exists in enormous numbers. We do know that there are a very great number of consumptive people everywhere, who spit about at random; on the sidewalks, on the floors of post offices, theatres, saloons and public places, as well as about the stoves and heaters in their homes. We do know that the microbes in this spit (or sputum, as it is called) stick to the dried particles of dust, and with the dust are breathed into the mouths, throats, noses and lungs of healthy people; or stick to the food and candies in the stores and are swallowed by many of you, children. And, finally, we do know that this is the great chief reason of the spread of Consumption. Therefore, above all things, remember this warning: Don't spit. Remember—No spit, no consumption.

2. Don't cough or sneeze without holding a handkerchief, or your hand, before your mouth.

3. Don't eat without first washing your hands.

4. Don't put dirty fingers in your nose or mouth.

5. Don't put your pencils in your mouth or use the pencils that others may have put in their mouths.

6. Don't spit on your slate or use any slate that others have spit upon.

7. Don't use any whistle, trumpet, mouth organ, wind instrument or toy that others may have put to their mouths.

8. Don't moisten your fingers at your mouth when turning over the leaves of books.

9. Don't use books that have been treated thus by others.

10. Don't buy candies that have been exposed to the dust in shop windows. Buy those in the bottles and packets.

11. Don't eat candies or chewing gum that others have sucked or bitten pieces off; or fruit that has been partly eaten by another. When sharing an apple, cut it, or break it.

12. Don't eat anything that others have handled with unwashed hands.

13. Don't keep soiled handkerchiefs in your pocket.

14. Don't use other people's handkerchiefs.

15. Don't forget to take a bath at least once a week.

16. Don't forget to brush your teeth carefully daily.

17. Don't neglect decayed teeth. Ask about them.

18. Don't neglect a cold or cough. Ask advice.

19. Don't sit about with damp shoes. Change your socks and clothes when you get wet, as quickly as you can.

20. Don't sleep with the window shut. Don't believe what some people say about "night air" being bad for you.

21. Don't smoke cigarettes; they weaken your constitution and so make you liable to disease.

22. Don't drink out of any cup used by others without thoroughly rinsing it first.

23. Don't sit at your desk in a cramped and stooping posture.

Think how very important these simple sounding little matters may be to yourselves and others.

Many apparently healthy people, who have the Tubercle Bacillus within them, successfully resist its growth, by attending to the rules of healthy life, until they become weakened by some other disease, such as measles, scarlet fever, whooping cough, bronchitis, gripe or typhoid, or shaken by worry, fatigue and overwork, or some mental trouble, which people call "shock to the system."

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