

PROVINCE OF BRITISH COLUMBIA

DEPARTMENT OF AGRICULTURE
(WOMEN'S INSTITUTES)

BULLETIN No. 50

THE ART OF RIGHT LIVING

BY

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DEPARTMENT OF AGRICULTURE,

VICTORIA, B.C., March 8th, 1913.

Hon. Price Ellison,

Minister of Agriculture.

SIR,—I have the honour to transmit herewith Bulletin No. 50, entitled, "The Art of Right Living," compiled by Miss Alice Ravenhill, Fellow of the Royal Sanitary Institute, etc., for distribution to the members of the Women's Institutes throughout the Province.

I have the honour to be,

Sir,

Your obedient servant,

WM. E. SCOTT,

Deputy Minister of Agriculture,

Superintendent of Institutes.

THE ART OF RIGHT LIVING.



WHAT is our chief object in life? There may possibly be a majority among us who have never paused to consider the question. We have just lived; got up and gone to bed; eaten and drunk; worked and talked; grumbled a bit, perhaps, enjoyed and suffered much and often; but never given a thought to the REASONS WHY we enjoy pleasures or endure pain; much less have we turned our attention to this question: What is the object of our existence?

Of course, it may so happen that a few among us were reared on the Old Scotch Catechism. Then our reply to the inquiry will be prompt and mechanical rather than thoughtful: "The chief end of man is to glorify God and enjoy Him for ever."

But what possible connection is to be found, you will ask, between this concise definition of a Scottish Covenanter's religious faith, our own little-considered ideal of an object in life, and

THE ART OF RIGHT LIVING?

Just this: We consciously or unconsciously glorify God by the standard of our daily lives, not by the singing of a hymn at intervals of a week or longer. Our object in life—our ideal—is or ought to be the maintenance of efficiency in ourselves and our homes, in order that our households may contribute their full share to the progress of the world and the betterment of humanity.

By what means, then, is energy fostered, health promoted, productiveness achieved? The answer to this inquiry is found in the title of this bulletin, which also indicates the connection I desire to trace for you.

RIGHT LIVING SHOULD BE OUR CHIEF OBJECT IN LIFE;

right living is the means by which, through the fullest development of all our powers, we glorify God. But this is not all. The title introduces another thought when it speaks of the art of right living.

WHAT IS AN ART?

If a good dictionary is at hand and you turn up the word "art," you will find it explained somewhat as follows: "Skill, dexterity, tact in planning and carrying out a project; a series of rules designed to aid one in acquiring practical skill or dexterity in performing some specified kind of work."

The full intention of my chosen title should now be clear. Seeing that it must be our object in life to live up to

THE HIGHEST LEVEL OF EFFICIENCY

of which each individual is capable, we must study rules designed to promote our ideal, and must acquire practical skill in their performance.

It is a common saying that there is nothing new under the sun; here is another proof of its truth in connection with our subject. The famous Greek poet, Homer, who lived, it is believed, about three thousand years ago, wrote the following words as a result of his experience of life:—

"IT IS NOT STRENGTH BUT ART OBTAINS THE PRIZE."

That is to say, it is not brute force or endurance which ensure success to men, but skilled dexterity in playing the game, whatever it may be; in this case, the game of life.

Has it never struck you how strange it is that for hundreds of years men have designed and carried out rules for their guidance in commerce, agriculture, forestry, navigation, and military tactics; they have devoted time and money to promoting effective methods in the care of crops and stock, even for the wholesale destruction of human beings; but have given little heed to the protection of their own health and have framed no rules to improve their own race?

The art of right living, as we understand it, took its rise barely a century ago, and it is but slowly assuming its

POSITION OF SUPREME IMPORTANCE

in the civilized world of to-day. Nevertheless, great things have been already achieved by the devoted service of medical officers of health, sanitary engineers, inspectors, and other expert officials. The death-rate has in many cases been halved; in others it has been reduced by two-thirds of what it used to be. The mortality from infectious diseases among young infants is strikingly lowered; the chances of life, and, what is more, of effective life, are correspondingly increased, and

THE CONTROL OF ILL-HEALTH

is more and more firmly established, as a knowledge of its causes is obtained. Each year sees sounder information at our disposal as to the marvellous means of self-protection possessed by the human body and of the conditions essential to mental and physical well-being. The distribution of diseased and adulterated food is subjected to penalties of increasing severity; filth is more rapidly and effectively removed from the neighbourhood of our homes, and more supervision is exercised over sources of public water-supply. What more, then, is necessary, in order that the multitude of

DISCOMFORTS WHICH HAMPER OUR EFFICIENCY

and weaken our powers shall also be banished from our homes?

Much more co-operation from private individuals is called for, if health is to reach the level it could do if all our knowledge were utilized for this art of right living. Until precepts are translated into practice, they resemble some vast treasure hidden in the depths of the sea, while its owners starve and die for want of the necessities of life.

No life need be lost to-day for lack of knowledge. That so many lives are warped, curtailed, and wretched is due rather to

INDIFFERENCE, APATHY, AND BAD HABITS.

There is urgent need for every household to study the rules of healthy living, for every housekeeper to acquire skill and tact in their practice; for each individual to feel it his business to understand the conditions under which he can do the most and the best work; and then—here comes the pinch, for we are so selfish and indolent and conservative in our habits—comply with them.

It is absolutely possible for each one of us to raise our lives to

SOMETHING HIGHER, MORE HEALTHFUL AND BEAUTIFUL AND ADMIRABLE

than those we have hitherto led. Our work need not so often miscarry, nor be so dull and distasteful. The majority of our daily frets and hindrances are self-inflicted; and no quantity of drugs, no floods of self-pity, can heal or remove them. The remedy lies in the practice of the art of right living, the outlines of

which are mapped out below. The remainder of these pages will be devoted to sketching in some details; to complete the picture would call for many bulletins.

OUTLINE OF THE ART OF RIGHT LIVING.

(I.) THE PRACTICE OF CLEANLINESS IN	OF	{	the air breathed, the water used, the personal habits, the surroundings.	}	External care of	{	skin, hair, teeth, clothing, lungs, digestive tract.
(II.) INTELLIGENT RULES AND PRACTICE IN REGARD TO DAILY ROUTINE IN	OF	{	food and drink, sleep, work, exercise, recreation.	}			
(III.) BECAUSE OF OUR DUTY TO	OF	{	self, home, neighbours, Empire, Race.	}			

A WORD OF CAUTION MAY BE ADVISABLE.

Do not misunderstand me: the maintenance of health does *not* depend upon continuous attention to bodily wants or needs; the result would be a population of nervous invalids; but *upon the formation of healthful habits*, which, when thoroughly ingrained, can be left to take care of themselves and of the body, while the mind is set free to follow out the course of life whatever this may be.

(I.) THE PRACTICE OF CLEANLINESS.

The housewife's life has been described as a perpetual war against dirt. Where does it all come from?

Much of it is the result of the constant grinding or rubbing of one surface against another; wagon-wheels grind dust off the surface of yard or road; boots grind off the surface of their soles as well as of the floors or carpets upon which their wearers walk. The contact of clothes with furniture is the source of more dirt, so is their contact with the skin of their owners.

ALL BURNING OF WOOD, OIL, COAL, OF OTHER FUELS

makes dirt; the steam from the vessels on the kitchen stove carries a cloud of greasy, sugary dirt all over the room. The breath and waste matters excreted by men and animals contribute impurities to the air; all living matter as it passes through countless forms and stages of decay adds its quota of dirt to the atmosphere.

MOST DIRT IS, IN THE FIRST INSTANCE, INVISIBLE;

therefore more difficult to control. When it collects on tiny shreds of cotton or wool; when it settles, several layers thick, in an unoccupied room; when it adheres as "mud" to shoes and clothes; when it smells badly, our attention is attracted, and by its removal we feel some reward for our ceaseless labour in "cleaning"; but to banish invisible as well as visible dirt from our homes demands knowledge of its sources and forms and a very high standard of duty; for invisible dirt is by far the more dangerous to our health.

I do not hesitate to say that were the dirt in the air of our houses visible, there would speedily come about a

VAST IMPROVEMENT IN THE NATIONAL HEALTH;

for we should be sickened by the sight of the foul air we feed to our poor long-suffering bodies. The lungs require no less than 2,000 gallons of air to meet the body's needs every twenty-four hours. Perhaps, during that time, we may drink 3 pints of water and eat from 2 to 4 lb. of food. About the cleanliness of this food and water we think a good deal; about the quality of this enormous volume of air we scarcely think at all. So we become

"POORLY," ANAEMIC, DYSPEPTIC, OR PEEVISH;

and suffer from frequent colds, the cause of which we seek in every direction but the right one. Now, listen to the words of a physician of world-wide renown, Professor Leonard Hill, of the London University, on the subject of "Stuffy Rooms": "The changing play of wind, of light, of cold," he says, "stimulate the activity and health of mind and body. Cold is not comfortable, neither is

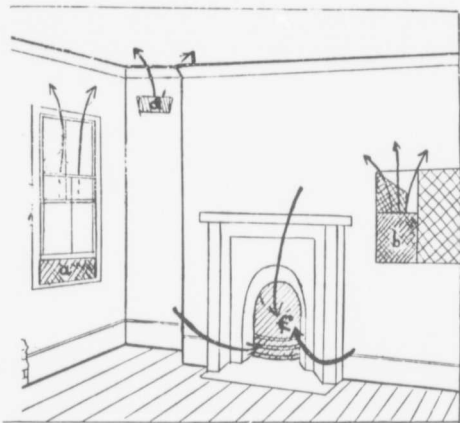


Fig. 1.

To illustrate inexpensive but effective methods of room ventilation.

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hunger; therefore we are led to ascribe many of our ills to exposure and seek to make ourselves strong by what is termed good living. I maintain that the bracing effect of cold is of supreme importance to health and happiness; that we become soft and flabby and less resistant to the attacks of infecting bacteria in the winter, not because of the cold; but *because of our excessive precautions to preserve ourselves from cold*. The prime cause of 'cold' or 'chill' is not really exposure to cold, but to the overheated and confined air of rooms and meeting-places."

There is nothing more fallacious, continues Professor Hill, than the supposition that overcoddling indoors promotes health. All our efforts should be directed, he says, towards preventing the overheating of our houses (60° to 65° Fahr. is the correct temperature), and to keeping the air in motion. In overheated dwellings the air, confined between the bodies and clothes of the inmates, is raised almost to blood-heat (99° Fahr.), and becomes saturated with moisture, so that

the ordinary cooling of the body, which is an important function of the skin, is seriously interfered with. A strain is thrown on the whole mechanism of the body, one result of which is that the surfaces of the body covered with mucous membrane (the nostrils and throat, for instance) become dry like the nose of a sick dog. In this condition they become very susceptible to bacterial infection and the defences of the body are all weakened. Hence the susceptibility in stuffy rooms to

CATCH THE BACTERIA OF COLDS AND INFLUENZA.

What can we do to ensure clean air in our homes, if it must be kept moving and not be overheated? How can we ensure clean air, above all in our bedrooms, where more consecutive hours are spent than in any other part of our houses?

SOME SUGGESTIONS FOR THE VENTILATION OF OUR ROOMS.

(1.) Insist upon sash, not casement windows. Keep one or more of these open at the top night and day, except when there is severe frost. Close the windows in chilly weather when dressing and undressing, but have no fear of fresh air when in bed. It is far more healthful to have a hot-water bottle in bed all the year round, and to wear warmer garments during the day, than to live and sleep with shut windows.

(2.) If you have delicate children or if the bed must stand close to the window, put a screen between the sleeper and the open window; or fit a board, 6 inches deep and the same width as the window, under the lower sash. (See Fig. 1) (a). The arrows in the illustration show the upward direction taken by the outside air as it enters between the two sashes, of which the result is that it mixes first of all with the warmer air near the ceiling, so that the chill is taken off before it comes in contact with the occupants of the room. This is a simple, inexpensive, and admirable arrangement for sitting-room as well as bedroom windows during the winter.

IF THE WIND SET DEAD UPON THE WINDOW.

tuck a strip of cotton wadding along the opening between the sashes, fresh air will enter all the same, but it will be broken up into a thousand streamlets, instead of rushing in like a flood.

A somewhat similar arrangement for a casement window is suggested at Fig. 1 (b). The piece of lumber can be cut to any depth preferred for the screen, over which the air will enter the room; it can be bolted into place at night and removed during the day.

(3.) AIR MUST BE KEPT MOVING IF IT IS TO BE CLEAN.

Now, there can be no movement either in air or water unless there is an outlet for the stream as well as an inlet. It is a serious menace to the health of Canadians that, as a consequence of the method of heating their houses, no provision is made for foul air to escape from their rooms. In Great Britain it is illegal to build any room, however humble, in which, if there be no chimney-flue, some other outlet for air is not provided.

An open fire is a valuable means of ventilation (Fig. 1 (c)), and at all times a certain proportion of dirty air finds its way up a chimney. The usual substitute in the Old Country is shown at Fig. 1 (d).

AN OPENING IS CUT IN THE WALL CLOSE TO THE CEILING,

about 14 or 16 inches long and from 8 to 10 inches deep. A bit of mosquito-netting is nailed over the opening on the outside to prevent the entrance of insects or birds; and indoors a small "hopper" is fixed over the aperture—i.e., a piece of wood sloped out from the wall by reason of its triangular side pieces—so that there shall be no "down draught."

CLEAN WATER

is as essential to good health as clean air. Care in the provision and protection of public water-supplies has saved millions of valuable lives, for cholera, typhoid fever, and dysentery are deadly diseases carried from one person or place to another by water.

It may be said that in the country, where each household has its own well, these risks do not exist. That is more or less true; though water may travel miles in underground streams and still retain the germs of some disease with which it has been contaminated at a far-distant point. Besides which, impure water or insufficient water for cleansing purposes are responsible for a vast amount of poor health, sore throats, and bodily discomforts. Fig. 2 illustrates a state of affairs all too common in many a farmstead. Leakage (2 (a)) from privy, cesspool, tank, or manure-heap (2 (b)) finds its way to the well, with

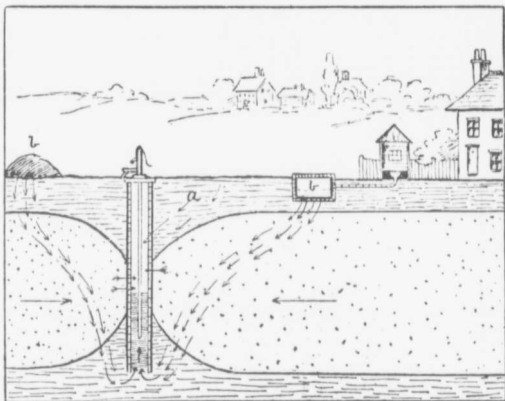


Fig. 2.

Reproduced by kind permission of Messrs. E. J. Arnold & Son, Ltd., from "Practical Hygiene," by Alice Ravenhill.

unsatisfactory results to the consumers of the dirty water. The relative position of well, midden, stable, cow-shed, pigsty, and sanitary convenience is of great moment to the family health. When in doubt as to the cleanliness of water,

BOIL IT FOR AT LEAST HALF AN HOUR.

The "flat" taste can be removed and its pleasant sparkle can be restored by the simple expedient of pouring it two or three times from one jug into another; this restores the air which is driven out by the boiling process.

CLEANLINESS IN PERSONAL HABITS

is a very big subject, which can be touched upon all too briefly in these pages. It must be considered under two heads:—

- (a.) External cleanliness, or care of the person; and
- (b.) Internal cleanliness, which is of equal importance.

(a.) EXTERNAL CLEANLINESS.

This includes care of the skin, nails, hair, and teeth. The story is told of an old Sussex gardener, innocent of bathing, who remarked: "I be quite clean; my sweat cleans me." In one sense he was right. The passage of perspiration through the skin (and at least a pint and a half of water leaves the body through the sweat-glands in twenty-four hours) is a much more cleansing process than the mere throwing of water over the body in a bath. Many physicians advise that every one should, during some part of the day, undergo sufficient active exertion to induce free perspiration. One reason why manual workers are so much more healthy than clerks or servers in shops lies in this fact, that they perspire freely in consequence of the nature of their work; whereas clerks, bar-tenders, and others similarly employed lead sedentary lives in overheated rooms, so that their skins become soft, flabby, and inactive. But even the hardest labour cannot entirely replace a warm bath, in which by the use of soap and friction surface dirt is removed. Preferably this bath should be taken at night, as it is advisable

NOT TO LEAVE THE DAY'S DIRT BETWEEN THE SHEETS!

Few people nowadays seem able to take a cold bath, bracing as it is to those whom it suits; the reasons for this cannot be discussed here owing to the limits of space; neither do they concern our subject, for cold water exercises no cleansing effects.

Perhaps the two points in this connection which most call for emphasis are these: To cleanse the person thoroughly does not demand gallons of water, pleasant though it may be to enjoy the luxury of a deep bath. If water is scarce, stand in a bowl of hot water, and rapidly rub the body all over with a well-soaped loofah, sponge off the soap and dry with a rough towel. The friction cleanses and stimulates the skin, more than the amount of water used; and soap is necessary as well as the hot water, in order to dissolve and remove the greasy deposit on the skin.

Do not be afraid to wash the *hair*! It is a mistaken prejudice which leads people, otherwise clean, to leave the scalp dirty. Is it not a sore disgrace to mothers all over the world, even in the most highly civilized countries, that from 50 to 80 per cent. of the girls medically examined in the public schools should have unclean heads? Heads should be washed every fortnight or three weeks; though the use of strong alkalis to soften the water, such as soda or crude ammonia, or of cheap soap, is inadvisable; rain-water should be used when possible, and a good quality of soap.

Nails are strangely neglected in many cases; yet the rim of dirt beneath a finger-nail may carry infection to the food with which the finger comes in contact; while ill-kept nails are not only a disfigurement to their owner, but prevent the same delicacy of touch in the finger-tips, which, next to the lips, are the most sensitive part of the person and indispensable to the execution of skilled work.

CLEANLINESS AND CARE OF THE TEETH

are even more neglected than are the hair and nails; yet it is no exaggeration to say that the owner of one decayed tooth is the subject of slow poisoning; while a whole host of unsuspected ailments more or less serious are the direct result of a mouth full of unhealthy teeth. It is hoped that Fig. 3 will illustrate the truth of these statements. It shows two teeth in the upper jaw, split down lengthways, so that their structure can be seen.

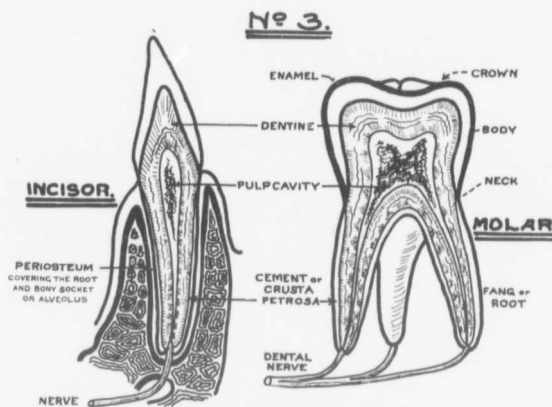
Observe, in the first place, that each tooth consists of three parts:—

- (1.) A crown; that is the portion of the tooth which shows above the gum;
- (2.) A root or roots; that is the portion of the tooth buried in the jaw-bone;
- (3.) The pulp; for the supply of feeling and nourishment.

The crown is covered with enamel, the hardest structure in the human body, composed of lime and gelatine; but the rest of the tooth is covered with a softer substance, called "dentine" or ivory. The pulp consists of nerves and blood-vessels, which enter the tooth from the jaw-bone. Fig. 3 shows in (1) a perfect "bicuspid" tooth; alongside it are two "molar" teeth, both of them in different stages of decay.

THE PROCESS OF DECAY IN TEETH

is the result of particles of starchy foods, such as bread, lodging in the crevices of the teeth, where it favours the multiplication of a certain form of bacteria which swarm even in the healthiest of mouths. The result of their activity is fermentation and the production of an acid which dissolves away part of the enamel. Another kind of bacteria then attack and dissolve the gelatine, so that a hole is formed and the mischief can spread to the sensitive pulp beneath.



SECTIONS THROUGH THE PERMANENT TEETH.

IF TAKEN IN TIME,

so that the decayed portion is carefully removed, while the hole is filled with some proper material, the tooth may last for years. If, however, the trouble is neglected and spreads to the pulp, great pain is suffered, the pulp dies, decomposes, and an abscess results, which causes intense suffering, besides the loss of the tooth, which, meanwhile, will probably have infected its companions. All the time, the owner of the diseased tooth will have been swallowing the disgusting discharge from the abscess, which causes all sorts of troubles—constipation, indigestion, "bilious attacks," tendency to colds, sore throats, etc. The direful results of the collection of particles of food at various points on the surface of teeth is clearly shown in Fig. 4, which illustrates the process of decay in teeth.

TO ALLOW A TOOTH TO DECAY AND THEN HAVE IT OUT

is far too common practice; but, as is demonstrated in Fig. 5, if a tooth is removed from either jaw it throws two teeth out of use in the other jaw, an important fact of which most people are ignorant. This illustration shows a complete set of sound teeth in the mouth of an adult. How many of us possess this valuable aid to health and beauty?

HOW TO PREVENT DECAY

(1.) Keep the teeth clean and healthy by thoroughly masticating all the food eaten, instead of bolting much of it unchewed. For this purpose include crisp toast, crackers, and raw apples in the daily diet. The custom of eating only pulpy, soft food and the crumbs of bread is bad for the teeth. Therefore, form the habit of

closing each meal with a bit of crisp crust, toast or cracker, or with a raw apple, the juice of an orange, or with a draught of water, to leave the teeth as clean as possible.

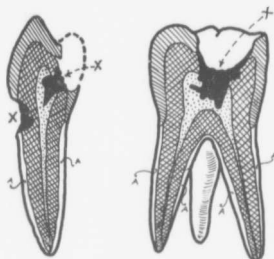
(2.) Brush the teeth *always at night*, and advisedly in the morning too, with some precipitated chalk; quite the cheapest and most reliable tooth-powder. To increase its effect, draw the brush once or twice across a cake of "Monkey Brand" soap before dipping it into the chalk.

SALIVA IS STICKY;

it needs a powder to remove it, as it clings to the teeth. Pastes and liquid dentifrices are mostly expensive and useless, for they do not remove this sticky secretion, which glues food particles to the teeth.

(3.) Care of the teeth must include their periodical inspection by a competent dentist; this is one of the best investments against ill-health, and must never be neglected.

N^o 4.



DECAY OR CARIES OF THE TEETH. X

CEMENT ON ROOT OF TEETH A

FORMULA OF THE
PERMANENT TEETH
(ONE SIDE).

$$\frac{2 \cdot 1 \cdot 2 \cdot 3}{2 \cdot 1 \cdot 2 \cdot 3} = 32$$

BOTH
SIDES

TOTAL

INCISORS CANINE, PREMOLARS, TRUE
MOLARS.



ENAMEL.



DENTINE.

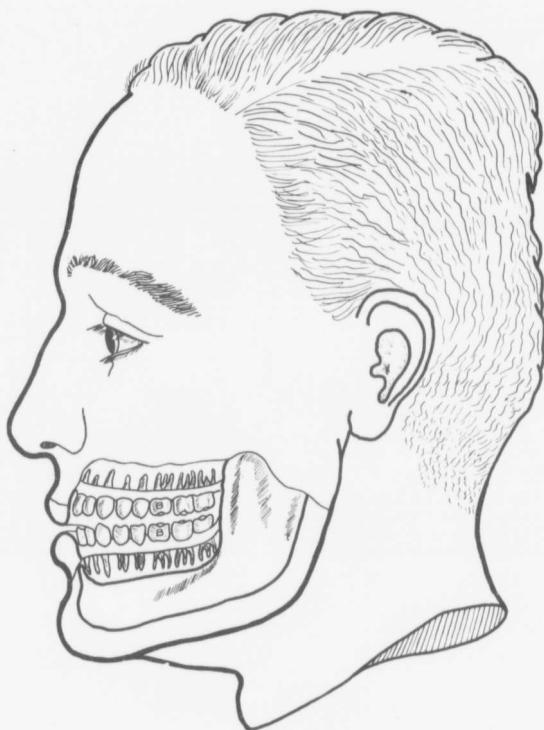


PULP CAVITY.

CLEANLINESS IN CLOTHING.

It may seem superfluous to refer to this particular form of cleanliness, especially as it just now happens to be the fashion to wear short dresses out-of-doors, so that the disgusting sight of a long skirt trailing in the dust or mud is rare. Will an enumeration of the constituents of road or street dust suffice to make our women turn a deaf ear to Dame Fashion when next she decrees long skirts to be "the mode"? Particles of hair, wool, cotton from animal and our own clothes; specks of blood, pus, and infectious discharge from cuts, wounds, and sores; expectoration from the mouths of consumptives or from others full of putrid teeth; manure and the droppings of birds and animals. Have I quoted horrors enough for once?

Nº 5.



6th YEAR Molar B.

FORMULA OF THE PERMANENT TEETH (ONE SIDE)	2 · 1 · 2 · 3	BOTH SIDES
	2 · 1 · 2 · 3	TOTAL
	INCISORS · CANINE · PREMOLARS · TRUE MOLARS.	

$$\frac{2 \cdot 1 \cdot 2 \cdot 3}{2 \cdot 1 \cdot 2 \cdot 3} = 32$$

THE CLEANLINESS OF WOOLLEN CLOTHES

or of corsets or of well-worn shoes often leave much to be desired. Remember that soapsuds and boiling water are one of our best purifiers, worth gallons of much-vaunted "disinfectants." Remember also the invaluable purifying agents for non-washable things provided for us free by Nature: I refer to the sun and the wind.

THE OBJECTIONABLE ODOUR

of soiled, long-worn garments is unfortunately familiar. A glance at our stockings as we remove them at night gives visible explanation of one cause for this. The white, powdery substance adhering to the inner side of the stockings consists of dead skin, rubbed off the surface of the legs by friction; the same thing happens hourly all over the body. If it is left undisturbed it soon decays, as does all dead matter; and unpleasant is the result to sensitive nostrils! Though that is of small importance compared with results to general health.

Much more could be written on this subject, but it is necessary to pass on to a consideration of what is meant by

(b.) INTERNAL CLEANLINESS.

Brief reference must here again be made to the quality of the air we draw into our lungs. Where this is impure or actually unwholesome, there can be no robust health. Anemia is one of the commonest results of the constant breathing of stale, bad air, and certainly, where there is a persistent tendency to "catch cold," attention should be directed to the character of the atmosphere where the sufferer spends most of his or her time. The

LOWERED VITALITY

associated with habitual breathing of a poor quality of air predisposes to depression, drunkenness, susceptibility to infection of all kinds, debility, languor, and other miseries. Convincing proof of this fact is afforded by the splendid gain to delicate children of

OPEN-AIR SCHOOLS.

Well fed and well wrapped up, they are out-of-doors in all weathers, and colds and infections cease as if by magic.

There is one form of internal cleanliness, however, which must be dealt with at greater length for it concerns most materially the standard of efficiency we attain in life; I mean

RIGHT CARE OF THE DIGESTIVE TRACT.

Any unhealthy condition of the nose and throat as well as of the teeth results in digestive disturbances. For this, among other reasons, it is so important to attend to "adenoids" in children, and to seek medical advice in cases of *chronic* colds or sore throats, as well as when attacked by some acute form of these troubles. It stands to reason that when constant unwholesome discharge is passing into the stomach there must be interference with the normal process of digestion, while the discharge itself is partially absorbed and slowly poisons the system.

Another fruitful source of indigestion has received attention in more than one previous bulletin—viz., eating food at irregular hours, or food unsuited to the consumer, or food in itself unwholesome. In each case imperfect digestion leads to the formation of unhealthy residues, difficult for the body to dispose of. Internal uncleanness follows, usually combined with what a wise and experienced woman physician has described as

"THE CHIEF PHYSICAL SIN OF WOMEN,"

namely, constipation. What does this imply? Many things; but one of the most serious is the retention in the intestines of decomposing matter, the products of

which are gradually absorbed into the blood-stream, carrying disorder and discomfort all over the body, and reflected in the leaden, spotty complexion, languor, and often foul breath of the sufferer. A mother has few more important duties to perform with her children than the formation, even from birth, of regularity in the discharge of solid waste matters from the body. The earlier a habit is formed,

THE STRONGER AND MORE PERSISTENT IT IS.

Throughout infancy, childhood, and youth nothing must be allowed to interfere with attention to this physical requirement, regularly, at a stated hour.

Probably the regrettable prevalence of constipation among women is due to the indefinite and nondescript character of their duties. A man or lad knows that he must leave the house to start work at a given time and he makes arrangements accordingly; whereas a woman has no such stated hours for her occupations. Her intentions are just as good; but perhaps the children take a little longer than usual to get off to school, or the kitchen fire gives extra trouble, or certain dishes for the midday meal must be prepared early or they will not be ready to time; and so the morning slips away, without attention to her own physical duties. Thus the bad habit creeps ahead, and presently it can only be controlled by the constant resort to drugs, a pernicious and unsatisfactory means of affording relief to the body.

REMEMBER THE WORDS OF A FRENCH DOCTOR:

"If you want to cure yourself of chronic constipation, you *must* cultivate regular habits. Choose a moment which is likely always to be convenient, even though it involves getting up a few minutes earlier to keep to it with punctuality. If the effort to relieve the bowel naturally be unsuccessful one day, put the failure out of the mind for twenty-four hours; then try again at the appointed hour, probably some success will follow." Never allow more than three days to pass, however, without relief. But remember that

THE MORE POWERFUL THE REMEDY USED,

the more obstinate will be the succeeding constipation. It is for this reason that when the addition of more fruit or vegetables to the diet or the drinking of more water (especially a tumblerful at bedtime and in the morning) have failed to relieve the trouble, cascara in some form is often recommended. The dose of this drug can and should be gradually reduced until Nature once more undertakes her own work.

A WORD OF URGENT CAUTION

is necessary on the subject of relieving chronic constipation by the use of injections, a means never permissible except under a doctor's orders. In addition to the many disadvantages associated with the habitual use of this treatment, it must be borne in mind that waste material is removed from the lower bowel only, so that serious accumulations take place in the higher portions which are left unaffected. An occasional dose of rhubarb, just

TO GIVE THE BODY A SPRING CLEAN,

is advantageous; but too strong a protest cannot be uttered against habitual resort to aperient medicine as an aid to internal cleanliness. Such a dose at intervals, however, will often relieve certain periodical discomforts which hamper some women's lives, and which are too liable to drive them to stimulants or narcotic drugs for relief.

It is well worth while to give a periodical dose of rhubarb a good trial; if it does not diminish subsequent discomfort, always consult a doctor. Small beginnings, when neglected, sometimes result in serious endings. No one can afford to fritter away health by permitting the continuance of possibly preventable discomforts, for which a cause always exists.

CLEANLINESS OF ENVIRONMENT.

Some elements which enter prominently into our surroundings have already received attention—namely, the quality of the air we breathe and of the water we drink, as well as the character of the dirt in our homes and the duty of its control by intelligent cleaning. All three of these elements could be profitably discussed at greater length; so also could others now to be enumerated. The fact is, these bulletins can only serve as suggestions to their readers; details on each subject may be gained partly by means of discussion at meetings or of books, or, like *Oliver Twist*, by "asking for more" bulletins.

THE FREE ADMISSION OF LIGHT.

more especially of sunlight, to our rooms is a powerful agent in good health. Houses should, where possible, be built with a south-east aspect, so that for nine months in the year each room is daily purified by direct sunshine. The most sunny room in the home must be the children's bedroom, for they spend more time in one room than does any member of the household. Admit every ray of sun,

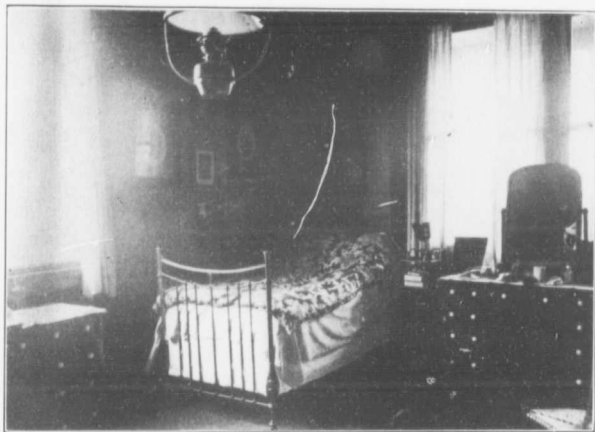


Fig. 6.

except when the little folk are in bed; and never shield the life-giving sun from any room except during the heat of summer. It is your

CHEAPEST CLEANSER AND DISINFECTANT.

Set yourself against dark blinds and folds of curtains over your windows. Please remember that *one-third* of all the light which enters through a window pours in through the top quarter of its area. When, therefore, the upper part of a window is permanently covered by a thick, dark blind, the most valuable portion of the glass is rendered useless.

Notice the light, washable curtains in Fig. 7. They are graceful, suitable, washable, easily handled, and render blinds unnecessary. Observe the position of the bed in this illustration. It has windows near the head and foot, yet is itself out of any draught. These windows face east and south; so that in the winter the sun's rays slant in under the south verandah, and in the summer they pour in through the eastern window before they are too hot for comfort.

TO OBSCURE LIGHT IS TO SEEK ILL-HEALTH.

There can be no real cleanliness in a dark house; dirt, darkness, and disease are inseparable companions. A part of our environment which appeals strongly to us all, and to which some of us are even disposed to devote too much time, is

OUR BED.

Yet what carelessness prevails as to the cleanliness of this bed. The sleeper creeps out from between the clothes in the morning, leaving them much in the position in which they have been through the night. By and by the bed is made. In what does the process consist? Well, I will say, in what it ought to consist, and leave you to decide whether your practice comes up to my precept. When getting out of bed throw back the top coverings and just well loosen them, so that they may cool and dry. Before leaving your room, strip off the under-sheet and



Fig. 7.

blanket, raise the mattress as shown in Fig. 8, and throw open the windows to their fullest possible extent, allowing a full hour to pass before making up the bed again.

WHAT IS MEANT BY DRYING A BED?

Most people understand that a bed is better for cooling, but who among us ever sleeps in a damp bed? Let me remind you that moisture is always leaving the body through the skin, to the amount of at least a pint and a half in twenty-four hours. If eight hours are spent in bed, there must be half a pint of moisture shut up in the bedding; moisture which carries off some impurities from the body; consequently undesirable to retain around us. Therefore, a bed must be aired, dried, and purified by light each day.

ALL THE EXCRETIONS OF THE BODY,

solid or liquid, should be removed with the least delay from our houses. Chamber vessels must be kept covered after use and scalded with soda-water after being emptied. Give them and the covers free exposure daily for an hour or two to light and air.

There is no method of disposal of slop-water so safe and inexpensive as a trench about 6 inches deep and from 15 to 20 feet long, filled with stones, and planted on each side with shrubs, of which the roots absorb the fluid, so that no offence is caused in even the hottest weather.

An earth-closet is the best method known for solid excretions. The earth must be dry and free from stones. A small quantity should be placed at the bottom of the pail after emptying, and a shovelful should be shaken over the contents of the pail after use. The pail should be emptied daily into a 4-inch trench in the kitchen garden, the contents being just covered with earth. After a few days the trench can be dug over and plants of the cabbage tribe should be the first crop raised. The garden will flourish and family health will be maintained where this method is adopted.

IF ANY OFFENCE IS EXPERIENCED,

the cause will be found either in the misuse of the pail or in its too infrequent removal. No liquids must find their way into the pail, and the removal should be daily. In snow or frost the contents can be heaped in an outside shed, with the addition of a sprinkling of dry earth, and removed when the thaw sets in. On no account must the trench be dug more than 4 or 5 inches deep, as the germs which convert this valuable manure into a form suitable for plant-nutrition can only work near the surface; hence a deep trench defeats the end in view.

THE CONTROL OF FLIES

in our environment depends entirely on the proper disposal of refuse, stable manure, vegetable accumulations, and so forth. Never say you cannot imagine why there are so many flies. Their presence is a reflection upon your own cleanliness and that of your family. Banish accumulations of refuse and you cut off your supply of flies. They prefer stable manure for their breeding-grounds, but will make the best of any filth which happens to be at hand! Try and persuade your men-folk to sprinkle a little dry earth over the manure-heap when they clean out the stable, and you will enlist valuable allies in your fight against the fly-plague. Much more could be said on the subject of a healthy environment, but it is now necessary to pass on to the consideration of

(II.) INTELLIGENT RULES AND PRACTICE IN DAILY ROUTINE.

Many people consider routine a deadly, wearisome thing. The general craving to-day is for constant change and variety. Is it advantageous, then, to prescribe a regularity which seems so unacceptable to the modern world?

There is no doubt some benefit in reasonable variety in the conduct of a part of our lives. Mental refreshment is associated with occasional change in the form of recreation or companionship; and physical refreshment usually follows change of air and scene. But a part only of the working of our lives lies under our control; the more mechanical processes of existence are carried on independently of our will and pleasure; as, for example, the act of breathing, the circulation of the blood, and the process of digestion. That is to say,

THE MECHANISM OF LIFE

is beyond our power to govern, but it depends largely for its efficacy upon our daily habits. The machinery of our bodies works with exquisite accuracy if we give it a fair chance; but, if for months we sit for hours by the fire and then suddenly attempt to climb a high mountain, we must not be surprised if this mechanism gets out of order from the unexpected strain put upon it!

If we never go to bed two successive nights at the same hour, can we be surprised if sleep, suffer and fatigue handicap our pleasures?

REASONABLE REGULARITY IN BODILY HABITS

should be our rule, if we want to be efficient and healthful. It is unnecessary for me again to enlarge upon the importance of regularity in meals. Punctuality is a

time-saving, health-promoting, virtue, which should be cultivated in youth and fostered throughout life. Make a stern rule that in your house, at least, there shall be no eating or drinking between meals, except, of course, when thirst is excessive in hot weather.

I refer here more particularly not only to the constant eating of candies, but to the injurious results of "nips" of alcoholic drinks at all hours in the day; a habit bound to bring disaster sooner or later, if not to the drinker, without doubt to the offspring. All investigation goes to show that

THE CHILDREN OF ALCOHOLIC PARENTS,

not necessarily of what are usually called "confirmed drunkards," are more susceptible to all forms of nervous disease, less fit for the battle of life, than are those of abstainers. If alcohol must be taken, then let it be drunk at meal-times, not between-whiles; and remember, more than 1 oz. (two tablespoons) a day is harmful. Resort to tea or coffee at odd hours is also to be deprecated in the interests of good health.

REGULARITY IN HOURS OF SLEEP

is of equal importance to health and efficiency, with regularity of meals. This alternation of rest and activity is one of the most strongly marked rhythms in nature. The rest of winter succeeds the activity of summer in the world of vegetable and insect life. Night follows day, the ebb-tide alternates with the flood. The human body is a

MASS OF RHYTHMICAL HABITS.

The temperature rises and falls with absolute regularity when the body is in good health. Muscular energy is regularly greater in the morning, less in the afternoon. Did space permit, examples of these bodily rhythms could be multiplied manifold. The heart, for instance, works and rests in quick alternation, so that it is hard to believe what is the fact, that it rests just as long as it works. But no rhythm is more important or more beneficial to health than that of

THE HABIT OF PROLONGED, QUIET SLEEP.

Experts on the subject of nervous diseases and insanity say without hesitation that sufficient sleep, under suitable conditions, constitutes the best insurance against breakdowns and mental instability. Like all rhythms, sleep must be permitted at regular hours, and experimental observations show that sleep before midnight—

"BEAUTY-SLEEP," AS OUR GRANDMOTHERS CALLED IT—

is far more refreshing than sleep, however sound, after midnight. This is a strong argument against late hours for adults as well as for children. There can be no sound, vigorous population when the hour for retiring is habitually midnight or later.

WHAT AMOUNT OF SLEEP IS NECESSARY?

This is a question impossible of direct answer. Children can scarcely sleep too long. (A table showing the length of hours advisable at each year of age will appear in the bulletin on "The Care of Children.") In later life the number of hours desirable depend upon the individual and the character of the work done.

Some people do well on six hours' sleep, for others seven hours suffice, while most women find eight hours none too much for their refreshment. No hard-and-fast rule can be laid down, except that in every case more sleep is needed in winter than in summer, owing to the lowered vitality consequent upon absence of bright light and sun-heat.

WHAT ARE THE MOST SUITABLE CONDITIONS FOR SLEEP?

To this inquiry a most definite reply can be given. Refreshing sleep demands quiet, darkness, pure air, warmth, and comfort. We need sleep because all activity

causes fatigue. Fatigue is caused by the presence in the blood of certain poisonous matters which result from activity, especially from muscular activity. Hence manual labourers usually need longer hours of sleep than brain-workers, for only during sleep are these matters cleared out by the body.

Rest without sleep does not suffice to remove fatigue, and the fallacy that

CHANGE OF OCCUPATION IS REST

has cost many overworked people very dear.

Quiet is essential to refreshing sleep, because any noise, even though the sleeper may not hear it consciously, stimulates the brain.

Light, too, is a stimulus, and interferes with complete repose. People who live near a trunk or ear line or in some crowded city constantly wake in the morning feeling almost as weary as when they went to bed, because the repairing process, so active during sleep, has been interrupted by recurring noises or flashing lights.

Pure air is another essential to recuperative sleep. Only in the coldest weather should the bedroom windows be closed; have them open to their fullest extent if you desire good health; and sleep on the porch, if possible, six months out of twelve.

Warmth is indispensable to good sleep. Don't overload the bed with heavy quilts or "comforters"; a hot-water bottle is far more wholesome, and its contents are conveniently at hand for toilet purposes in the morning.

Down coverlets, when ventilated, are delightful bed-coverings. It can be hardly necessary, in the twentieth century, to caution against the use of feather beds. They are in every way unwholesome, enervating, impossible to "air" properly, and perfect carriers of infection.

Reasonable comfort is most generally provided by modern bedrooms. Knobly "flock" mattresses are comparatively rare, having been replaced by purified wool or, better still, by horsehair. Where the expense of wool or hair cannot be afforded, a bed filled with chaff, which is so cheap it can be easily renewed at intervals, is much to be preferred to "flocks," which are too often made from filthy and imperfectly purified rags and shreds of old cloth clothes. Active measures to prevent the further manufacture of this form of cheap but most insanitary bedding have been taken in the Old Country, as the result of the exposures published by the indefatigable Chief Sanitary Inspector of Glasgow, Mr. Peter Fyfe.

THE HYGIENE OF DAILY WORK

in factories and workshops has now received attention for a hundred years, although much still remains to be done to secure entire satisfactory conditions for workers; in many cases, on account of their own indifference to the subject.

But the provision of ideal conditions for the performance of domestic duties has lagged far behind; women continue to estimate the worth of their service by the fatigue experienced, and pride themselves, not upon their intelligent adoption of improved appliances as they come on the market, but upon their ability to produce good results at an extravagant expenditure of time and energy, without employing conveniences to be purchased for a few cents or, at most, a few dollars.

SUCH CONDUCT IS UNINTELLIGENT AND BLAMEWORTHY.

Naturally, each woman has her own particular problems and must study the conditions of her own duties in order to decide where a saving of energy can be legitimately effected, and in which direction "steps can be saved" to the greatest advantage.

WORK IS BENEFICIAL WHEN PROPERLY PERFORMED.

Without exercise muscles soon become flabby, and flabby muscles are associated with all sorts of physical discomforts, besides a passing stiffness when called upon to exert themselves. Far more injurious than flabby muscles, however, is a flabby brain. Nerves deteriorate for want of exercise more rapidly even than muscles.

WORK CEASES TO BE DRUDGERY WHEN CONSCIOUSLY DIRECTED BY AN ACTIVE BRAIN.

No more profitable subject can engage the attention of the members of women's institutes, congresses, or clubs than the more intelligent utilization of activity and appliances in daily domestic routine. Call in the aid of men, for they have long grasped the value of right posture, appropriate tools, and well-considered surroundings as aids to effective, economical work. Impress upon young people that

POWER TO DO GOOD WORK IS A PRIVILEGE.

The utilization of the labour-saving devices described in Bulletin 41, and their supplement by others as they are introduced, will so lighten the call upon strength that energy will remain for other forms of exercise, of importance to mental as well as physical well-being. Have you ever noticed the change in your feelings of anxiety, fret, or irritation before and after a short, brisk walk with a pleasant object or in the company of an agreeable friend?

The blood has circulated more rapidly and promoted more effective nutrition; the brain is also stimulated by a purer blood-supply, so that life has assumed a much brighter aspect. Quickened respiration has increased vitality and given a fillip to the body's furnace, so that waste matters are more completely destroyed and nutrition is more perfect. Muscles unexercised by domestic duties are brought into play, while those wearied with work are given a respite from activity. A short, sharp walk should constitute a daily tonic. It is cheap, beneficial, and exhilarating.

BY YOUR OWN WELL-BEING ENTHUSE YOUNG PEOPLE WITH THE JOY OF WORK AND SERVICE.

May not some of the prevalent distaste for family service be due to its association with an overwrought, preoccupied woman, always tired, sometimes indifferent to her appearance or figure? Instil from early days respect for the body, the dignity of ministering to its needs, the skill involved in the right care of human life, the joy in lightening the burdens of others, the privilege of utilizing ability to do anything just as well as it can be done, i. e., the *exercise* of mind and body in well-doing.

THE PLACE OF RECREATION

in busy lives must not be overlooked in any code of health rules. Have you ever observed the economy associated with the possession of two instead of one pair of boots or shoes, so that each pair is worn alternate days instead of continuously? They much outlast the lives of two pairs worn in succession, while the feet they clothe are less wearied.

This is but another illustration of Nature's law of rhythm, about which I have already written. Rest appears beneficial even to inanimate objects, such as boots and shoes; much more is this the case with human beings. Now, though the old idea that change of occupation is rest can no longer be supported, nevertheless change of occupation in many cases means recreation.

RECREATION IS ASSOCIATED WITH LIGHTENED RESPONSIBILITY,

which is one reason why it is so hard for a house-mother to find a place for it in her busy and responsible life. A man comes in with his day's work done, sits down in a comfortable chair to read the paper, or goes out to meet his cronies and smoke a friendly pipe. But his wife has the supper to cook, or the children to bathe and put to bed, or the week's mending to do, or some clothes to make, or the ironing to finish. When is her recreation-time to be found? The appearance of thousands of women give the answer. They never find time to recreate their minds and bodies, so they lose touch with much that fills life with interest and pleasure and age prematurely.

Others there are, found more often among the younger generation, who will not forego the excitements and variety which entered largely into their lives before

marriage, so they just scramble through their home duties and let things "take their chance." In neither case are homes really happy, though in the former they are well kept; in the latter they are not.

REASONABLE RECREATION IS A DUTY TO SELF AND FAMILY.

Make a rule that one hour out of the twenty-four shall be entirely given up to this process of restoring the powers and preserving your elasticity and efficiency. One day the best form of recreation may be an hour on your bed. Another day it may be a chat with a friend; another day it may be found in a book or newspaper; or in retrimming a hat; or in tending a garden-plot; or in a game with the children; or in making a sketch or picking out a melody on the piano.

VARY THE FORM OF YOUR RECREATION.

but never omit the duty of finding time for it. Women are so apt to forget that duty to self as well as duty to family is an element in healthful efficiency. Besides this personal aspect, bear another point in mind. If you want to influence your young people through the most critical years of their lives (from fourteen to twenty-four), you must show yourself able to enter into their pleasures, and to share more or less in their hobbies and pursuits; to discuss with them topics of the day or their favourite books, to be their comrade as well as their parent or guardian. Perhaps this argument in favour of recreation will appeal to you more strongly than the purely personal reasons given above.

I am strongly of opinion that one cause for the still prevalent contempt for domestic duties and growing indifference to the claims of home and family may be traced to the accepted idea that a woman's work is never done (whereas in all other occupations there are stated hours of employment), and the fact that if a house-mother "does her duty" she is cut off from social life; while the mother herself is too apt to consider an overfatigued existence to be her appointed lot in life and not to give sufficient thought to its possible alleviation.

TOO BUSY TO SHARE IN HER CHILDREN'S AMUSEMENTS.

she gets out of touch with their tastes, and they seek sympathy and companionship elsewhere. Do not lose sight of this fact: Rest from work and suited recreation means a direct saving of the vital powers and a consequent prolongation of productive and useful working-days.

(III.) WHY IT IS OUR DUTY TO PRACTISE THE ART OF RIGHT LIVING.

- (1.) Because we owe a duty to ourselves.
- (2.) Because we owe a duty to our homes.
- (3.) Because we owe a duty to our neighbours.
- (4.) Because we owe a duty to our Empire.
- (5.) Because we owe a duty to the Race.

Life is designed to yield results; man is not framed to be a mere cumberer of the ground. The root of efficient life lies in the home. As is the home so is the product.

THE BALANCE OF THE BODY

hangs on the quality of the nature it inherits from its ancestors and the surroundings in which it lives.

The researches of the last few years have brought ample confirmation of the teaching of Moses: the sins of the fathers are visited upon the children to the third and fourth generations.

The children now being reared in our homes are the parents of the next generation. According to our care of their bodies, according to the use we train them to make of their will-power, according to the ideals we set before them, will they be prepared to hand on the torch of human life burning with greater brilliance and

a purer light than they themselves received it; or—surely it is unnecessary to detail the possibilities of deterioration and its gruesome results to offspring. They are but too familiar.

THE CHARACTER OF OUR FOOD, SHELTER, AND SANITATION

are mainly under our personal control; but co-operation with the community around us is necessary for the betterment of the laws and of the general attitude concerning the protection of food-supplies, conditions of labour, building regulations, control of infectious diseases, and other factors in the promotion of health.

"OF WHAT USE IS AN EMPIRE," ASKED LORD ROSEBERY, "WITHOUT AN IMPERIAL RACE?"

An Imperial race can be assured if all the knowledge now at our disposal be applied to the control of our environment and to the intelligent adaptation of habits to climate, occupation, personal requirements, and social obligations. We are no longer at the mercy of conditions; it is for us to master them and shape them to our own purpose.

It has been well said, and the saying is peculiarly applicable to women's work in our home. "The art of to-day is the beautifying of human lives." It is my earnest hope that the contents of this bulletin will place at your disposal a part, at least, of the materials necessary for this noble work. Do not forget duty to self as well as duty to others; example outweighs precept any day.

See to it, then, that—

The mind's sweetness shall have its operation
Upon thy body, clothes, and habitation.

For faith without works is dead.

ALICE RAVENHILL,

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 " 7. The Care of Children.

The Department of Agriculture is issuing the following series of bulletins prepared by Miss Alice Ravenhill, Shawmigan Lake, B.C., to be available for distribution among the members of the Women's Institutes throughout the Province:—

NOTICE.