

(Bishop of the new diocese of Chelmsford, Eng.) says: "All the beauty of the Garden is pictured with true and delightful delicacy by Miss Farncomb. . . . In the Garden all our life we can find God walking, not only in the 'cool of the day,' nor does He only 'resort there oftentimes' as the Master to the garden of olive trees, but He is ever present 'all the days.' . . . Each chapter in the book is a walk down a fresh path. In the garden there is a fragrance from the pleasant all the more delightful because it is that aroma, faint and subtly suggestive, which draws us nearer to examine the blossoms for ourselves, to walk ourselves 'In the Garden With Him,' which surely is just what the author desires.

"To all who love the Lord, I heartily commend this little book. Here they will see Him, speak with Him, and He with them, not like Mary thinking Him to be, but knowing Him to be, the Gardener, through Whose tender care we shall some day be brought into the Paradise of God."

Another Donation.

I have received \$2 from A. M., to use for some of my poor people. Many thanks. HOPE.

Cheer up Brother.

(By one of "The Advocate" readers.)
Go smiling through the world, my dear,
Though troubles come thick and fast,
It seems easier for you to shed a tear,
But the trouble will not last.

Sometimes the road seems dark and long,
There are weary hills to climb,
Then brighten the rest of the world with
a song,
The view at the top is sublime.

There's sweetness in pleasure after pain,
Though it makes the teardrops fall,
The robin singing in the rain,
Is a lesson to us all.

So, though the road be dark or bright,
Just sing, 'twill brighten our way,
To-day may seem like the darkest night,
To-morrow it will be day.

But this is easier said than done,
I know, for I've been through the mill,
Just lift your eyes to the Blessed One,
Who said, "I am with thee still."

Our troubles are a lesson to us all,
Without them we forget our God,
Remember the Lamb Who was sacrificed,
And the rough road He has trod.

He careth, oh, so much, for you—
Remember the sparrow's fall—
So, whether the sky be black or blue,
His angels guard us all. WILD ROSE.

The New Public Health.

The Farmer's Advocate" Bureau of Public Health Information.

QUESTIONS, ANSWERS, AND COMMENTS.

Conducted by the Institute of Public Health.—The Public Health Faculty of Western University, London, Ontario.)

Established and maintained by the Ontario Provincial Government.

[Questions should be addressed to: "New Public Health, care of 'The Farmer's Advocate,' London, Ont." Private questions, accompanied by a stamped, self-addressed envelope, will receive private answers. Medical treatment or diagnosis for individual cases cannot be prescribed.]

More About Foods.

WHAT ARE FOODS FOR?

The simplest explanation of what foods used in the body are for depends upon the analogy that all living things need nourishment just as a furnace needs fuel. This is not merely an illustration: furnaces burn things (coal, wood, kerosene, gasoline, gas, etc.) which are, chemically, not at all unlike foods; they are made

up of very much the same things, carbon, hydrogen, oxygen, that most foods are made of in part.

All these ordinary fuels, as they burn, produce carbonic acid and water chiefly.

Burning is merely a word we have for oxygen combining chemically with other things: oxygen combining with carbon makes carbonic acid; with hydrogen, water. In ordinary fires, the combination is so rapid that heat is produced usually to the point of visible flame; but although we do not usually think of anything burning unless flames are produced, slow burning goes on often without a flame. Rusting of iron, for instance, is a slow burning of the iron; that is, a slow combination of iron with oxygen, no flame and very little heat (so far as our ordinary senses tell us) appearing. The heat is produced, of course, but so very slowly that it passes off as soon as it is formed, and therefore does not accumulate anywhere sufficiently for us to notice it. This kind of oxidation or burning is the kind that goes on in the body, not so fast as an ordinary furnace, much faster than in ordinary rusting of iron. Food produces heat that is quite noticeable. Enough to boil a big tubful of water every day is produced by every man who works fairly hard.

FUEL FOR BUILDING PURPOSES.

Our body-furnace does not use food only for fuel, but also to replace the furnace itself, parts of which are always "burning out"; and even to make the furnace larger, as when one is "putting on" muscle; or when children are growing up. Think how much food a child must use to grow in weight from ten pounds when it is born, to 170 when it is an adult. The difference, 160 pounds, is often added by the time the boy is sixteen years old; a good, big, husky boy, that would be, but nothing very unusual. Ten pounds a year, say, on the average, is added by rapidly-growing children, besides all that is burned up. This means all the protein in fifty pounds of meat added directly to the body every year.

THE FUEL MUST BE DISSOLVED IN WATER.

Because people eat "solid" meat, "solid" bread, etc., they do not always remember that all they eat in the true sense, is really a very, very thin soup. Food is not added to the body merely by swallowing it; it must be broken up fine and finer, and most of it must be dissolved in the blood itself, before it can reach the real flesh and be added to it from the blood. Our true "feeding" does not occur through the mouth at the dinner-table, but all through our arms and legs and other parts, most of it after dinner-time is over.

WE REALLY ARE WATER ANIMALS.

We, the part of us that really and truly feeds, our living flesh, is bathed all the time internally by a colorless, salty liquid, called the lymph: the blood, in the bloodvessels, carries the food to the lymph and our flesh; the cells of which we are made, soaks up the dissolved foods from the lymph.

Germ and very small vegetables and animals obtain their food by soaking it up through their skins from the water around them. Just so our cells take up their nourishment from the water (lymph) that surrounds them. Thus, in a way, we are sea-animals turned inside out, having the salty water inside of us, instead of outside, but getting our nourishment from it in just the same way.

OUR FOOD-GRABBING HANDS.

We use a good many different kinds of meat, fish, birds, vegetables, fruits, nuts, etc., as food, grind them up, digest them, turn them in solution into the blood, and soak them up into ourselves from the lymph. But, after all, these very varying kinds of food contain only a few classes of foodstuffs, protein (the principal foodstuff in lean meat), starch, sugar, fat (and oil), salts, water. These are much changed before they reach the lymph; changed in the digestion in the intestine, and perhaps elsewhere. But although they are changed, still they retain each its chief characteristics.

The thing that makes a food different from other things that pass through the blood in the body is this: a food has a sort of chemical handle that our cells can take hold of. The same thing is true of poisons. Nothing can poison you unless it has a chemical handle that your cells can take hold of. Now, each kind

of food has a different shaped handle, and our cells have many different kinds of chemical hands; one kind for each kind of handle. The hands that can take hold of the protein handle cannot take hold of the carbohydrate handle; and so on. But the same handles that take hold of foods sometimes happen to fit the handles of certain poisons also. Then, if that poison comes along there is trouble.

IMMUNITY TO FOODS.

This is a point we do not see quite clearly yet, but it would appear that foods shade into poisons very gradually: there are not two sharp groups, all the foods, food, and all the poisons, poison. Alcohol is both, according to how much is used, although alcohol is a very poor food, and a very good poison. But the general rule seems to be that as morphine in very small doses will affect greatly those who are not used to it, while by taking it constantly, larger and larger doses become necessary to give results, so foods when first taken are to some extent resented by the body; to a slight degree only it is true. Proteins seem to be the class of foods to which the body most obviously requires a certain immunity: that is, you must take some before you may take more in safety, just as you must smoke and be sick before you can smoke and be well. While this is rather speculative, still it seems to be true in practice that children who "can't eat meat" are children who have not eaten meat already; in brief, that it is, as a rule, foolish to keep meat from a child for fear it is too strong for them or will make them sick. Remember that mothers' milk itself is like meat, largely protein, where it is not water or fat. The practical rule to remember for children is, breastfeeding to one year old; then, gradually, the general foods, until at four the child is happy and content in contact with any adult food.

QUANTITIES.

A previous article pointed out that infants require only one hundred calories from heat-producing food; an adult man 3,000 to 4,000. A child may be gaining weight, red-cheeked and healthy-looking, when it is getting too much fat, and storing it instead of using it up. A boy from nine to thirteen requires as much as a man, and from fourteen to nineteen, more. Not only so, but the idea that a boy should go short of meat, that only adults should have such "strong food," is quite the reverse of truth. The adult can obtain the heat he needs from fats and carbohydrates, and only a relatively small amount of protein is called for to repair waste. The boy not only must replace a tremendous lot of heat he uses up in many activities (not actually work in the adult sense, but just as truly work so far as his muscles and other cells are concerned), but he must repair the waste just like the adult; and also, unlike the adult who has stopped growing largely, he must gain on the waste, not merely repair it; and not gain weight just by storing up fat, but by making more and larger muscle, larger bone, more liver, etc. Growing boys need more protein than men.

Girls do not, as a rule, need so much food, nor do they change much from eleven to thirty in their requirements.

H. W. HILL.

(To be continued.)

I believe in a man who takes what he thinks belongs to him, and holds it against the world; in the man who so loves life that he keeps a hearty appetite for it and takes long draughts of it; who is ever ready to come back smiling for another round with the world, no matter how hard he has been punished.—Price Collier.

Nearly all the crime in our army can be traced to intoxication. When our men are removed from the temptation of intoxicating liquor, crime is practically unknown among them.—Lord Wolseley.

The test of manhood comes when we rejoice with those who rejoice; anybody can weep with them that weep.—Dr. Frank Crane.

Fashion Dept.

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