

A young American couple I know here have a most artistic apartment which they furnished entirely from stuff they bought at the Auer Duit. Some of the old furniture they have would be worth barrels of money in America.

On one side of the church the entire space is given up to a display of crockery and kitchen utensils. Most of the stuff is dumped on the ground, and everything, from a salt cellar to a highly-colored Madonna, is for sale. Acres of crockery and tinware, with the bright sun shining upon it, is a most dazzling spectacle.

On the outer edge of the fair were rows of refreshment booths, and an odoriferous cheese-corner, where the kind called "Limberger" was sold. Further comment is unnecessary. And, of course, just across the way was a convenient brewery where tired bargainers could rest comfortably and pass the time pleasantly drinking a quart or two of that liquid for which Munich is famous.

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.)

[Questions should be addressed: "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.]

Ques.—Please give us some idea of the relative values of different foods for human people. We have all had so much instruction about foods for stock.

STARVELING.

Ans.—I hope you will not starve any longer, but eat what suits you without worrying too much about what it is, so long as it is good, and there is plenty of it! Feeding people is rather different from feeding stock—for stock is more or less carefully bred, and rather definite strains run through even our scrubs; but we ourselves are from this standpoint, the scrubbiest of scrubs, with a tremendous mixture of all sorts of strains in us. This is peculiarly true of the British race, for they are a mixture of so many different strains that most Britishers have French and Scandinavian blood at least, and usually several others amongst their ancestors. The result is that we are unstandardized machines, and we can no more prescribe exact diets to be used by all people, than we can tell how much gasoline an auto should use. Every kind of auto needs a different amount, and individual autos, even of the same make, vary a good deal.

Of course, certain general principles can be discovered. First, all that we eat can be classed as belonging to one or other of five or six groups, proteids, fats, carbohydrates, water, salts, drugs; the proteids are chiefly found in flesh, fish and fowl, eggs, milk, and milk products; in general, food derived from animals, although most vegetables have more or less proteid in them also. The fats are also chiefly from animals, suet, lard, butter, cream, etc., but also come from vegetables, as olive oil; many vegetables, especially nuts, have some oil in them. Carbohydrates include starches and sugars, and are found chiefly in vegetables and fruits, although milk, and some other animal products, including some meats, have a little. All foods from animal or vegetable sources, contain a good deal of water, and some salts. Of course, we have these different things, proteids, etc., in forms separated out from each other, as well as mixed; thus we can buy pure sugar, pure salt, pure fat, pure starch, and pure proteid, and it would be possible to buy these things and mix them to suit ourselves, but there comes in our psychic development and our faculties of taste and smell. A perfectly nourishing meal, made of the proper proportions of

white of egg in one cup, starch and sugar in another, suet in another, with a drink of water and a pinch of salt, would turn most people away from the table at once. We might feed stock that way, because they cannot help themselves; but even stock require a certain variety and pleasure in their eating besides the mere absorption of so many pounds of each kind of nourishment. This is what makes feeding humans so complicated. Take the white of egg, the starch, the sugar, the fat, the water, and the salt, in the proper proportions, make a nice, tasty cake out of it, with a little pinch of "drugs" (flavoring), and "the children cry for it." It is a curious thing that what is theoretically an ideally nourishing food, like a properly-made cake should be considered an evil thing for children to eat, especially if it has fruit in it, although fruit is an excellent thing for children, as well as grown-ups!

It is an interesting thing to know that proteids can by themselves maintain life, while carbohydrates, starch or sugar, etc., cannot. A man would starve and die if fed on nothing but starch, or sugar, or fat, or all three; but he would be kept alive on proteids. Now this does not mean that a man would starve on bread, as has been said sometimes, for bread contains protein as well as starch, although more of starch than of anything else except water.

The way the body uses these different things explains why we cannot live on starch or sugar or fat alone, although we can live on proteid alone.

To begin with, all food is fuel—it is food because it is fuel, of the kind that our bodies can burn up; and we literally do burn it up, just as a furnace burns up coal. We produce a great deal of heat this way, too, enough to bring to boil eight gallons of cold water every day. We ought to get all this fuel from our foods. But we are like the old wooden steamers; if we run out of fuel we can burn the ship itself. That is just what happens in starving, when the fuel supply (food) gives out, we begin burning up ourselves, and use the glycogen or starch we have in us as part of us, then the fat we have (or may have—some people are pretty thin!) stored up under our skins; then the "meat" itself, muscles, etc. It is curious and interesting also, to know that the body, in starving, uses up itself as fuel very cautiously and carefully; just as a sea captain would if he had to burn up part of his ship to keep his engines going. The sea captain would take the least important parts of the ship first; so it has been found that in starving, i. e., trying to live on ourselves instead of food, the most important muscles, like the heart, and the muscles used in breathing, are not drawn upon to supply fuel until the muscles used in walking and lifting, comparatively unimportant operations to the body, are used up first. This is why starving men are so weak; they are living on their own muscles. The fuel we get as food in the form of fat or carbohydrates, is excellent fuel; but it is fuel only; we cannot replace the used-up parts of the body with it, except the used-up fat or starch. Now, in all life, the body itself, the proteid part of us, is used up, and we can replace this part of us only with proteids. So if you have followed this closely enough you will see that if we have a diet of proteids, we can use part of it to build up the body, as well as part of it for fuel. But if we have only fats or starches, or sugars, and no proteid in the food, we have fuel enough, but nothing for repairs. That is why we would starve to death on carbohydrates or fats, but survive on proteids.

This does not at all mean that carbohydrates and fats are not worth having. They supply the fuel we need in a quick-burning, readily-used form, especially the fats. Anyone who is doing heavy, muscular work, needs lots of fat and sugar to do it on; the starch he eats is turned into sugar largely; and the sugar into fat: so if he eats fat to begin with, he saves himself the trouble of turning it into fat: that is why lumbermen and hunters and farmers doing heavy, muscular work, like fat pork; and it explains why they are so fond of pies—starch and sugar, you see. It is all very well for city people who don't do as much muscular work in a week as a farmer or hunter does in a day, to laugh at fat pork and beans, and pies, but they suit

the heavy worker just exactly—always provided they are good to begin with, well made and nicely cooked. "The way to a man's heart is through his stomach"—and it is all right that it should be so. A man who is worth anything is expected and wants to work, and he must have good food and plenty of it if he is to do hard work well.

You couldn't expect a nice fire without proper fuel, properly fed to it, and you cannot expect a furnace or an army or a harvester or a lumber camp or stove or a home to be a success if you neglect the first essential—fuel. The only thing that keeps the world going is the need for food; very few people would ever do anything if they did not have to hustle to keep themselves fed! Then what is the use of toiling and planning and working hard for food if when you get it, it isn't nice and good, and what you want? When we dig down far enough we find the most useful people in the world are the good cooks, bar none.

Next time I will try to explain a practical system for estimating the different proportions of proteid, carbohydrates, and fat, that should go to an ideal meal. This will require a lot of tables (of figures; not of wood!) but they may be very useful if you understand them, and don't take them too seriously!

H. W. HILL.

Announcements.

Free single addresses on public-health subjects may be arranged for by any club, society, etc., in Ontario, with the Director. Subjects: School Hygiene, Flies, Sewage Disposal, Contagious Diseases, Tuberculosis, Typhoid Fever, Ice-water Supplies, Ventilation, Overcrowding and Housing, Infant Mortality, Sex Hygiene, Germs and Diseases, Vaccination, Food Poisoning, Patent and Other Drugs, Handling of Epidemics, Rural Hygiene, etc.

Hope's Quiet Hour

Christmas Joy.

"Glory to God in His kingdom high,
And peace to men of goodwill!"
The Song that rang in the midnight sky,
Through space is echoing still.

In faith that God will uphold the right,
We watch for the dawning day
When Love shall reign on a throne of light,
And the earth shall own His sway.
DORA FARNCOMB.

The Coming Victory.

He will swallow up death in victory;
and the Lord GOD will wipe away tears
from off all faces.—Isa. xxv: 8.

We stand on the threshold of another year, not knowing what joys and sorrows will meet us there. Death—the great Conqueror—may snatch us away from all the cares and pleasures of this life. We know that perfect health is no safeguard against death. Probably most of the men who went out into the mysterious Beyond, in the great lake disaster a few weeks ago, were full of life and vigor. How is it possible to have peace, when death is always "shadowing us and ours"? How is it possible to go forward confidently when our future is all unknown? We need not fear any hidden danger, for

"JESUS we know, and He is on the throne."

He is able to fulfil the great promise of our text, and prove Himself the mighty Conqueror of death. With Him as our Companion we can face the New Year joyously. The friends of Christ can be victorious even in the clasp of death. There is a very plain promise to that effect in St. Luke xxi, where the disciples are told that for their Master's sake they shall be persecuted, imprisoned, and put to death; and yet He adds tenderly, "But there shall not an hair of your head perish"—a marvellous promise indeed. How often we have heard St. Paul's rendering of our text: "Death is swallowed up in victory. O death, where is thy sting? O grave, where is thy victory? Thanks be to God,

which giveth us the victory through our Lord Jesus Christ." Think of the quiet strength of his climax, in that well-known passage which has been read over so many graves: "Therefore, my beloved brethren, be ye steadfast, unmovable, always abounding in the work of the Lord, for as much as ye know that your labour is not in vain in the Lord."

The victory of faith is not won in a day, it is made up of countless victories over the temptations of everyday life. The year lies before us, and the service of each day will be gathered safely into the treasury of the king. Not one word or look of kindness can be lost, not one "cup of cold water" will be forgotten. The result of a great testing is a foregone conclusion—it is the natural result of the everyday victories or failures which went before. The fierce lions could not frighten Daniel from his daily communion with God. Why? Because he had never allowed any small matter to interfere with his stated times of prayer. Knowing the danger of his act, he knelt—with open windows—three times a day, not only praying, but giving thanks before his God, even in this fearful peril, "as he did aforetime." Those words, "as he did aforetime," reveal the secret of his victory—for he was a victor long before he escaped from the lions. Even if he had been killed—he would still have been a victor.

Out in India, some years ago, a sergeant and ten private soldiers charged an Afghan stronghold of 1,000 men. They obeyed orders—"someone had blundered"—and went forward to certain death. Even the foes who killed them acknowledged their glory. They were accustomed to bind a green thread around the wrist of a brave warrior slain, and a crimson thread was their tribute to a hero. But, when the British found the bodies of those eleven men, the crimson thread was around "both" wrists of each of them. Why did the fierce Moslems honor these stricken foes above their own bravest heroes? Let a poet tell us:

"Our brethren, laid in honored graves,
may wear
Their green reward,' each noble savage
said;
To these, whom hawks and hungry
wolves shall tear,
Who dares deny the red?"

Their chief said:

"These were not stirred by anger,
Nor yet by lust made bold;
Renown they thought above them,
Nor did they look for gold.
To them their leader's signal
Was as the voice of God;
Unmoved and uncomplaining,
The path it showed they trod.
As, without sound or struggle,
The stars unhurrying march,
Where Allah's finger guides them,
Through yonder purple arch,
These Franks, sublimely silent,
Without a quickened breath,
Went, in the strength of duty,
Straight to their goal of death."

They died—so must we—and yet they were victors. Man cannot always avoid death, and yet he is always the "master of his fate" and the "captain of his soul." Those who will have their place in the coming victory are quietly obeying orders day after day. To them the voice of duty is the voice of God. They are victorious all along the line, and not least so when—like those brave soldiers—they go, "without a quickened breath," in the path of duty, "straight to their goal of death."

A friend of mine told me, a few days ago, this story of her husband's death, which she said I might pass on to you. He was, apparently, in perfect health the day before; and said to her: "I must start off to business very early to-morrow, so we will read our morning verses to-night." He read to her out of their text-book the verses appointed for the next morning. Among them were these: "At midnight there was a cry made, Behold, the Bridegroom cometh; go ye out to meet Him." "Watch therefore: for ye know not what hour your Lord doth come." The last text he read was this: "I have fought a good fight, I have finished my course, I have kept the faith."

He went out early and, during the day, was doing some business in the Bank,