National Temperance Study Courses For Sunday Schools 1933

NATIONAL TEMPERANCE STUDY COURSE FOR SUNDAY SCHOOLS

LESSON 4. OCTOBER 29TH, 1933
(International Senior)
THE MILL
(By A. E. Giles)

As children we used to visit our grandfather's home beside the Mississippi River, a tributary of the Ottawa. Near the house stood his four-storied stone Woollen Mill.

As a treat he would take us to visit it and explain how cloth is manufactured. On entering we were awestruck with the ponderous machinery and great noise. First we saw the great sacks of wool from Australia, which went at once to the picking machine, which took out burs and other foreign material. Washing in huge vats and dyeing followed. By carding machines it was converted into lovely long soft rolls. A machine, called a mule spun these into threads which were wound on bobbins or large spools. So much grease was used throughout that the floors and stairs looked as if they had been oiled. The whole mill had to be kept very warm. The fascinating process of weaving the threads into cloth held us spell-bound. We watched the weavers as the machinery of the loom moved back and forth and the bobbins shot to and fro through the warp threads. Sometimes a man or a woman stopped to arrange a thread, tie a broken one, and sometimes all the machinery was still for a minute or two. This cloth was fulled or shrunk by being scoured with soap and water. When it was dry menders went over every inch to find flaws and repair them. Pressing and other details completed by the finishing machines left the cloth in great webs to be rolled on thin boards, ready for sale. Experts managed the machines in every process.

How we had been warned to avoid the machinery and the belts which operated it by power from the falls on the river! In spite of the thrills we had we were glad to leave the hot air, smelling of oil and wool, the greasy floors and tireless machinery and rush out into the sunshine and pure air.

To maintain our bodies we need air for oxygen, water to soften foods, aid digestion, and equalize heat, besides three kinds of food. Nitrogenous substances like meat, cheese, eggs, form flesh; mineral matters and salts, found in milk, vegetables, fruit, build up bone, teeth, etc.; carbonaceous substances found in butter, fat, sugar, starch, produce heat.

The transformation of the various foods into blood to build up or repair the body is called digestion. The digestive organs are like the various machines in the mill, most expertly worked. All food must go through the food canal, the mill, about 30 feet long, with walls of muscle, lined with mucous membrane.

The first part of the process takes place in the mouth, where the food is stirred about by the tongue, ground up by the teeth and thoroughly mixed with saliva from the glands or tiny ducts of the mouth. Sugar and salt are dissolved and starch is partly turned into sugar. If food is swallowed too quickly indigestion results. Alcoholic drinks taken between meals cause so much saliva to flow that, as a result, the supply is short for the next meal. Liquor with meals overworks the glands and the saliva becomes weak in chemicals. The mucous membrane is hardened and the sense of taste spoiled. If your mouth waters at the thought or smell of delilious food, it means an extra flow of saliva. Through the gullet by means of its muscles the food is swallowed and passes down to the next machine, the stomach, a sort of bag which will hold all the food eaten at one meal. It should be over 100 degrees hot to work properly, like the warm mill. The stomach glands furnish gastric juice, one of the chief ingredients being pepsin. By muscular action this juice is mixed with food, altering and dissolving such substances as meat. In about two hours all is a grayish fluid and passes into the last machine, the the intestines. Alcohol, not changed in the mouth, passes into the stomach, causes extra flow of gastric juice, weak in chemicals, separates the pepsin from the juice, injures the muscles, causes so much mucous it makes the stomach slimy red patches may appear on the membrane. In a heavy drinker these patches may become dangerous and cause disease.

In the intestines the digestion of fats and anything else left is completed by the action on them of the intestine juice, bile from the liver and pancreatic juice from the pancreas. All becomes a milky substance which soaks through the cells of the walls of the blood vessels to replinish the blood. Waste matters are carried off. The liver stores sugar, makes bile and alters poisons, more alcohol goes to the brain and liver than to any other part of the body. Drinkers give the liver so much work to alter the poison alcohol, its other work is neglected and often diseased livers result.

Just as in the woollen mill everything was done to have the machinery work perfectly with the best materials and produce by expert workers the best results, so people should do all in their power to aid the work of the perfect machinery of the digestive system by eating the proper food and avoiding any poison like alcohol, which not only injures the organs of the body but the finished product—the blood.

Memory Verses—Dan. 1. 15,16.

Question 1: Explain three ways in which the digestion of food resembles the work of a woollen mill. Value 9.

Question 2: Explain carefully how taking alcoholic beverages may lead to indigestion in the food canal. Value 12.

NATIONAL TEMPERANCE STUDY COURSE FOR SUNDAY SCHOOLS, 1933

LESSON 4. OCTOBER 29TH, 1933
(JUNIOR)

UNCLE JACK AND THE PRAIRIE CHILDREN

(By Muriel Mills Carscallen)

"Look, Joan, look!" cried Frank Harris to his twin sister, Joan, as he held up a large package before Joan's startled blue eyes.

"What is it, Frank?" cried Joan.

"It's presents for you and me!" cried Frank. Aunt Sue sent them to us from Vancouver!"

"Hurry up and open the package!" commanded Joan, as she danced up and down in her excitement.

Frank hastily unwrapped the large package and drew out two beautiful brown leather book-bags, one for himself and one for his sister.

"Oh," gasped both children at once, "aren't they wonderful!"

"Aunt Sue promised us something special for doing so well at school, don't you remember, Joan?" asked Frank, "but I never dreamed we would get anything like this!"

"We'll have to learn our geography well now," said Joan, her eyes shining.

"We do learn it," cried Frank, indignantly.

"Yes," said his sister, "but we don't like it very well, and perhaps Aunt Sue thinks this will help us to do better."

Frank and Joan Harris lived on the prairies and every day they rode seven miles to school on the backs of their roan ponies. With them rode an older boy and girl, Harry and Betty Thornton. Their ponies were black. The Thorton homestead was two miles further from the school than the Harris homestead, and Harry and Betty called early each morning for Joan and Frank.

The Harris children could scarcely wait for Harry and Betty Thornton to call for them the morning after they had received their new bags. It seemed that the older boy and girl would never come, but at last the two black ponies appeared, with Harry and Betty astride their backs.

"See what we got yesterday!" cried Frank and Joan both together.

"Aren't you lucky!" said Harry and Betty as they admired the new presents. "You'll be able to carry your art books now without fear of the water color pictures being spoiled by rain. Those leather bags should be good in all kinds of weather."

Then Harry and Betty added their share to the surprises of the day.

"Guess who's here, at our house!" said Harry, happily.

"Not your Uncle Jack!" cried Joan.

"Yes," said Betty. "He came last night, to stay for two months!"

"Hurrah!" cried Frank.

"He's going to ride over to the school to meet us this afternoon," said Betty. "We'll all ride home together."

The Thornton's Uncle Jack was a scientist who had travelled into many foreign lands to carry on his work, and he always told the most interesting stories the children had ever heard.

At last it was four o'clock and there was Uncle Jack waiting at the gate of the school house. He had brought four collapsible drinking cups for the children, and Joan's and Frank's fitted exactly into the small outer pockets of the new bags. Although it was autumn the day was very warm, and it took all the children's powers of concentration to listen to Uncle Jack, for the black flies were flying in swarms about them, and the dust rose in great clouds from beneath the horses' hoofs. There had been no rain for weeks, and the air was very dry.

"Uncle Jack knows where there is a spring," said Harry. We're going to turn off the road and go for a cool drink."

"Oh," said Betty with a satisfied sigh, after they had reached the spring and had drunk thirstily, "there's nothing like cold water, is there, Uncle Jack?"

"No," said Uncle Jack, smiling, "nothing, unless it is fresh air. We need a great deal of both. I have been places where I would gladly have given years of my life for fresh air and pure, cold water. Without them, we should soon die. Without water and the oxygen which comes from fresh air, food is useless to our bodies, for the cells are unable to get from the food the heat, strength, and other things which keep the body alive.

"On one of our expeditions into northern Africa, one of our men insisted that alcohol would cure his thirst, but after a great deal of trouble we convinced him that to drink any intoxicant in an effort to cure thirst would be folly."

"Why," said Harry, "there is water in intoxicants, isn't there?"

"Yes," said Uncle Jack, "but the drying power of the alcohol uses up more water than the intoxicant contains. Thus the body is worse off than before and thirst returns greater than ever.

"Alcohol affects the orygen of our bodies, too. The blood of the human body contains millions of tiny bodies called red corpuscles, and their duty it is to take in oxygen and distribute it to the cells of the body.

"When any poison enters our bodies, immediately a war begins in order to get rid of the poison. Oxygen is the chief weapon which the body uses, in order to change the poison into a non-poisonous substance and so get rid of it. But this oxygen was to have been used for heat, strength, and new building material for the body, and there is not enough of it. So alcohol, which is a poison, harms the human body. Continuous drinking of alcohol causes red corpuscles to become weakened and finally they break up and are useless."

"What makes the blood flow through our bodies?" asked Joan.

"The heart," answered Uncle Jack. "Do any of you know how it does this?"

"The heart contains strong muscles," said Harry, "and as the muscles contract and expand the blood is sent along the little paths all over the body which are called blood vessels."

"And what does alcohol do to muscles?" asked Uncle Jack.

"I know," said Betty. "It poisons them so that they can not work as quickly."

"That means that the heart cannot send the blood through the body as quickly when there is alcohol in the body, and if intoxicants are taken frequently, the muscles of the heart become tired and weak," said Uncle Jack.

"Does alcohol harm the blood vessels too?" asked Frank.

"It does," answered the scientist. "It hardens them, and they are meant to be soft and flexible. When the blood vessels are brittle they are inclined to burst when the heart sends a quantity of blood through them. This may have very serious results.

"Let's sit down here, beside the spring and look at some of the photographs which I have brought along," suggested Uncle Jack.

The children sat on the ground and gazed eagerly at the pictures of deserts and mountains, geysers and waterfalls which the scientist explained for them.

"This is a good way to learn geography," said Uncle Jack with a twinkle in his eye. "I have several pictures just like these, so I shall present these to Joan and Frank to carry in their new bags."

Of course Joan and her brother were delighted.

"You can look at them each day on your way home from school," said Uncle Jack. "That will help you to remember all about them."

"Here's one of the far north!" cried Frank as he looked intently at a photograph. "How did you ever keep from freezing up there?"

"By eating foods which contain a great deal of fat," answered the scientist. "No one who is familiar with the Arctic ever drinks alcohol to keep him warm, for he knows that he would be risking his life if he did."

"But why?" asked Harry.

"Because alcohol interferes with the body's heating system," answered Uncle Jack. "Normal body temperature is about 98 degrees Fahrenheit. There are blood vessels in the skin. When the body is too warm, these blood vessels stretch so that a great deal of blood may pass through them and be cooled by the air. When the body becomes cooler, these vessels contract so that less blood passes through them and so there is less loss of heat. Now when alcohol is taken into the body the brain becomes dull, so that shortly after the alcohol enters the body the blood vessels of the skin stretch and a large quantity of blood is sent through them. This warms the body for a short time, but soon the body becomes cold because of the amount of heat lost to the air. It is easier for the blood vessels to stretch or expand than it is for them to contract, and when alcohol enters the body the blood vessels do the easiest thing—they do not contract again because the brain has become dull, and the resulting loss of heat often causes a person to freeze to death."

"I should think that if the alcohol dulls the brain it would be very dangerous not only to Arctic explorers, but to other people as well," said Harry, thoughtfully.

"You are quite right," said his Uncle Jack. "You all know that if the brain has been dulled by alcohol, the senses will be dull and stupid too. If a man cannot see and hear as well after he has taken alcohol as he could without it, he is very apt to come to grief. That is what causes so many motor accidents, not only to the one who has been drinking alcohol, but to other people who have not. No one under the influence of alcohol can think or act as quickly as the one who is not under its influence, and he is almost sure to run down an innocent person because of this."

"If a man's brain has been dulled by alcohol he cannot feel cold very well, can he, Uncle Jack?" asked Frank.

(Continutd on page 14)

ANNUAL MEETING

Queen's County Conservative Association

The Annual Meeting of the Queen's County Conservative Association will be held in the Strand Theatre, Charlottetown, on Friday evening, November 3rd, at the hour of eight o'clock.

Addresses by our Federal and Local Representatives.

G. D. DeBLOIS, President. R. R. BELL, Secretary.

Guardian's Contest Closes At 3 p. m. Wednesday, Oct. 25

Final Count of Votes Will Be Made WEDNESDAY, at 3 p. m.

All Subscriptions and Cash secured during this week and up to the closing hour three o'clock, Wednesday, October 25th, will be put in sealed envelopes and brought to the Contest Office for the final count at the closing hour.

All Contestants are requested to be present at the close and remain in the room from the closing hour until the full count has been made and it is expected that the final count will be complete before Five P. M. on the afternoon that the Contest comes to a close.

The Grand Prizes:

The First Grand Prize is .... $600 Cash
The Second Grand Prize is .... $300 Cash
The Third Grand Prize is .... $200 Cash
The Fourth Grand Prize is .... $100 Cash
The Fifth Grand Prize is .... $100 Cash
The Sixth Grand Prize is .... $50 Cash
The Seventh Grand Prize is .... $50 Cash

Mr. Subscriber ! Only Four Days Left to Help !