

since you were here last. Intemperance must be a selfish vice, I am sure.

"About a fortnight ago my wife contrived, while I was gone to the city to procure a few bars of iron, to sell our old cow to a drove. And this woman, once so kind-hearted and thoughtful of her children, would see them starve rather than deprive herself of the means of intoxication. She has been in liquor every day since. But all this is nothing compared with our other late trial. Last Monday night I was obliged to be from home till a very late hour. I had a promise from a neighbor to sit up at my house till my return, to look after the children, and prevent the house being set on fire. But the promise was forgotten. When I returned about eleven o'clock, all was quiet. I struck a light, and finding my wife was in bed and sound asleep, I looked round for the children. The four older children I readily found, but little Peter, our infant, about thirteen months old, I could find nowhere. After a careful search I shook my wife by the shoulder to wake her up, that I might learn, if possible, what had become of the child. After some time, though evidently under the influence of liquor, I awakened this wretched woman, and made her understand me. She then made a sign that it was in the bed. I proceeded to examine, and found the poor suffering babe beneath her. She had pressed the life out of its little body."—*Alliance News.*

TEMPERANCE PHYSIOLOGY.

FOR USE IN SCHOOLS AND BANDS OF HOPE.
(Published by A. S. Barnes, New York, under the direction of the National W. C. T. U.)

THE SALIVARY GLANDS.

Three pairs of glands—one near and below the ears,* one pair under the tongue, and one pair under the lower jaw—aided by other very small glands that line the inside of the cheeks, pour out a juice called saliva, which not only moistens the food, but transforms some of its starch into sugar.

This is the first of the great changes which take place in food during the process of digestion. You will see how important



The parotid—one of the salivary glands.

it is that the work of the saliva should be thoroughly done, when you remember that unchanged starch does not nourish the body; if not changed in the mouth, it must be changed, but with more difficulty, elsewhere in the food-canal.

"Washing down the food," even with pure water, will not take the pace of slow eating, by which the starch is thoroughly mixed with the saliva and thus changed to sugar. Water simply moistens the food so that it can be more easily swallowed.

If the work of the mouth is but partly done, as by rapid eating, the other organs have more than their share to do; they may soon break down, and their owner suffers from dyspepsia, or some similar disease.

You may prove that starch is changed to sugar in the mouth, by chewing slowly a piece of dry cracker and noticing how sweet it tastes.

To say that "the mouth waters," is not exactly true. When we think of some favorite food, especially if hungry, the glands may send an extraordinary amount of saliva into the mouth, as if the food was there ready for its action.

TOBACCO AND THE MOUTH.

Sores on the lips, and even cancers, sometimes result from the use of tobacco; the breath, foul and repulsive, shows the condition of the stomach, the tissues, and the blood; the gums of smokers and chewers often become spongy, and their teeth are

"It is the glands under the ears—the parotid glands—that swell and are so painful when one has the mumps.

soiled and dark, instead of being white and pure.

The effect of the poisoning is to make the mouth dry, thus causing an extra amount of saliva to be poured out from the glands. But the constant spitting of the tobacco juice robs one of the saliva needed for digestion, and thus brings on dyspepsia.

Besides doing this harm to the user, the habit of spitting is a very impolite one. It makes floors and sidewalks unfit for cleanly people to walk on, and endangers the clothing of all who are near.

A man who should spit directly at another would be thought very insulting. Is he respecting the rights of others, though he may not intend to insult them, when he sends the foul juice a little to one side—or where they must tread at the next step?

In many cases, tobacco acts as the usher at the door of the saloon, because the dryness of the mouth which it produces, makes the user thirsty. But it is not a natural thirst—it cannot be satisfied by water; for tobacco so affects the nerves, as often to make one crave another narcotic.

Those in charge of inebriate asylums say that nearly all their patients have been users of tobacco as well as of alcohol.

THE ESOPHAGUS.

When divided by the teeth and softened and changed by the saliva, the food is ready to be swallowed, or sent into the esophagus, the passage way to the stomach.

Look at the throat of a horse when he is drinking, and you will see the motion of the ring-shaped muscles of this tube.

Food and drink do not simply slide down the esophagus; a horse often bends his head when he drinks, so that his mouth is really lower than his stomach.

The muscles contract one after the other, and push the food gently onward. For this reason, a juggler is able to perform the common trick of drinking a glass of water, while standing on his head.

THE STOMACH.

The stomach is a strong muscular bag in the left side of the abdomen. Its inner lining has many glands which separate from the blood a juice, called gastric juice. In this is a substance named pepsin which digests the flesh-making parts of our food.

The next coat contains muscular fibres. These stretch and shrink in such a way that the food is gently moved from one end of the stomach to the other, and so forced to mix with the gastric juice.

Some parts of the food are ready for use when they enter the stomach. These are at once taken up by tiny blood-vessels, carried to the liver, and then to the heart. The process by which food-materials enter the blood, is called absorption.

When the work of the stomach is ended, the food which is left is a grayish fluid, called chyme. It consists mainly of the tissue-making substances and the fats that have been eaten. Most of the starch and sugar, after being prepared in the mouth, has already entered the blood.

THE INTESTINES.

This part of the food-canal is a small tube about twenty-five feet long in an adult, coiled very closely in the abdomen. You will understand it better by looking at the intestines of a chicken, when the cook is "drawing" it in the kitchen.

Much remains to be done before the chyme is ready to enter the blood. The glands of the intestines are helped by two other glands which lie in the abdomen, one on the right side of the body—the liver, and the other toward the left—the pancreas.

These send into the intestines, through a small tube, the bile and the pancreatic juice, which, with the intestinal juices, divide and prepare the fats.

If the mouth, or the stomach has failed in any part of their work, these juices in the intestines do their best to complete the task. They can often do but little, however, and so we may lose part of the value of the food.

When fully digested, the milky mass is called chyle, and is ready to enter the blood. It does this by soaking through the thin walls of blood-vessels, and tiny tubes called lacteals.

STEPS OF DIGESTION.

In a large factory, each man has a special task to perform; the spinners do not attend to the loom, the weavers have nothing to do in the engine-room. So in the body, each part has its own work.

The saliva, to an extent, digests the starch-foods. The gastric juice digests the tissue-making foods. The bile and pancreatic juice digest the fats.

If one must eat rapidly, as at a railway station, the meal should be mainly of meat, as that will give strength and need not be mixed with the saliva for digestion.

The heat of the stomach must be over 100° F. in order to digest the food properly. Ice-water at once lowers the temperature; if taken too freely at meals, the stomach must stop working until it can get "warmed up" again. Such delays in the process of digestion are injurious.

ON NO ACCOUNT use a gas or oil stove without a flue to carry off the products of combustion. To heat an apartment by allowing these products to remain in the room is very pernicious. Of course heating stoves or cooking by such stoves of lamps renders the air unwholesome.—*Watchman.*

CONVERSATION in the family should be most carefully guarded and cultivated. The character of the children will, in a great measure, depend upon it. If it is loose and careless, parents cannot blame any one but themselves if their children imitate them in this respect. A spirit of love and tenderness should characterize the home conversation. If the atmosphere of home is that of strife and contention and frivolous language what can we expect of the children? Guard well what you say. Let it be hedged in with love and the spirit of Christ.—*Baptist Reflector.*

HINTS TO TEACHERS ON THE CURRENT LESSONS.

(From Peloubet's Select Notes.)

Aug. 30.—1 Kings 21: 4-19.

SUGGESTIONS TO TEACHERS.

The lesson may be taught by a series of pictures, as suggested by the headings in the notes above; or this plan may be combined with another, taking for its subject, "The Progress of Sin."

I. Covetousness. As illustrated in Ahab's case. No amount of possessions can keep from the unjust desire for what others possess.

Illustration. Trying to satisfy thirst by drinking the salt waters of the sea, which only increase the thirst. Out of covetousness grow many sins and crimes.

Illustration. The water for cities is often drawn from some large reservoir, and distributed to all parts by means of iron pipes. If the reservoir is poisoned or polluted, then all the water drawn from the various faucets in the houses will be poisoned and polluted. If the heart is polluted with covetousness, the deeds from the hands and the words from the mouth will be evil.

Illustration. Lightning flashes are but the visible manifestation of far larger amounts of electricity in the air, almost imperceptible. Crimes are the visible flashes from a pervading state of the heart.

II. Covetousness leading to discontentment (ver. 4). Kingly possessions and an ivory palace cannot bring contentment.

Illustration. The Greek story of Midas and the gold touch.

III. Discontentment leading to connivance with crime (vers. 5-8). Enforce the truth that "the partaker is as bad as the thief."

Illustration. (1) Shakespeare's Lady Macbeth. (2) Pilate trying to avoid the guilt of crucifying Christ by throwing it upon the people. He washed his hands in vain.

IV. Connivance with crime leading to lying and hypocrisy (vers. 9-13).

V. Lying and hypocrisy leading to robbery and murder (vers. 13, 14).

VI. All these crimes followed by retribution (vers. 15-19). Explain the latter history; Ahab's sorrow, and God's forgiving love; the repentance proving false, and the retribution following.

Illustration. Robespierre beheaded by the same guillotine to which he had consigned so many in the French revolution. Illustration. The French Catholics persecuted, martyred, and drove into exile the Huguenots, the Protestant Christians of France. When Germany, but a few years ago, conquered France, some seventy of the German officers were descendants of those exiled Huguenots. For practical at the close, review the lesson by dwelling on "The Voices from Naboth's vineyard."

Question Corner.—No. 15.

BIBLE QUESTIONS.

A SINGULAR BURIAL.

Both the place, and also, to a certain extent, the time of this burial, were arranged beforehand by the man who was buried. Yet the funeral procession, which consisted of an enormous number of persons, and was also of a very triumphant character on the whole, did not start till more than one hundred and forty years subsequent to his death; and the final committal of the remains to the earth did not take place till more than forty years after that. Also, the chief mourner on that occasion seems to have been the tenth-in-descent from the man who was buried. Where, and how, can all this be verified from God's word?

SCRIPTURE ENIGMA.

What Jewish feast drew such a motley crowd? Their preacher was with many tongues endowed!

A fiery prophet three disciples saw Appear with him who represents the law. Her busy hands lay still and cold in death, Till trustful prayer recalled her fleeting breath.

Malchus with soldiers went to take the Lord, What one struck off another hand restored? Who to the church declared, when praying late,

"Behold, the answer standeth at the gate?" Name him who wished to know what John should do,

To find the answers search his history through. First letters name a supernatural event.

ANSWERS TO BIBLE QUESTIONS IN No. 15.

SCRIPTURE CHARACTER.

- 1. Mark.
- 2 and 3. Acts xii. 12.
- 4. Acts xv. 38.
- 5. Acts xv. 39, and Col. iv. 19.
- 6. 1 Peter v. 13.
- 7. 2 Tim. iv. 11.

SCRIPTURE ENIGMA.

- FEAR NOT, LITTLE FLOCK.—Luke 12, 32.
- 1. Felix Acts xxiii. 34.
- 2. Elizabeth Luke 1.
- 3. Achan Gen. viii. 4.
- 4. Righteousness 1 Pet. v. 14.
- 5. Nazareth Matt. ii. 23.
- 6. Gal 1 Kings xvii. 16.
- 7. Timothy 2 Tim. iii. 15.
- 8. Lebanon 1 Kings iv. 31.
- 9. Issachar Gen. xxxv. 20.
- 10. Thomas John xx. 2.
- 11. Tabor Matt. xvii. 2.
- 12. Lepidus John xi. 45.
- 13. Elisha 2 Kings ii. 15.
- 14. Fishermen Matt. iv. 18.
- 15. Levitic Luke x. 32.
- 16. Oshites Matt. v. 1.
- 17. Cornelius Acts x. 5.
- 18. Kiss Matt. xxvi. 49.

CORRECT ANSWERS RECEIVED.

Correct answers have been received from Hannah E. Greene, Albert Jesse French, and Dennis Lytle.

INSOMNIA.

The cure of sleeplessness depends upon the cause. How various the causes are we have seen. I will not enumerate the devices for procuring slumber in the ordinary healthy; they are very numerous, but none of them have any general application. One counsel may be given, for it is not hackneyed; it is this: Learn to sleep in the daytime. This art is one which everybody has not acquired. People there are—I know such people—who are wise enough to eat when they are hungry, but who have never attained that higher reach of wisdom to sleep when they are sleepy. But occasions come to all of us when we need to be able to sleep in the daytime at will. Have you failed to get your needed sleep, whether because of work or watching, or sorrow or pleasure? Then repose in the daytime is the restorative needed. There is great virtue in naps—even in short ones—and the art of napping in the daytime, if you have not learned it already, is one to be learned without further delay. It may require a little practice, but nature is on the side of the learner.

And lastly, here is a bit of philosophy written by a wise man and physician, Dr. Frank Hamilton. Let me hope that at least one of my readers, if only one, will be wise enough to profit by its wisdom: "Gloomy thoughts prevent sleep. The poor and unfortunate magnify and increase their misfortunes by too much thinking. 'Blessed be he who invented sleep,' but thrice blessed be the man who shall invent a cure for thinking."—*Titus Munson Cavan.*