

THROUGH DEATH TO LIFE.

Have you heard of the tale of the aloe plant,
Away in the sunny clime?
By humble growth of an hundred years
It reaches its blooming time;
It reaches its blooming time;
And then a wondrous bud at its crown
Breaks out in a thousand flowers;
This floral queen, in its blooming scene,
Is the pride of the tropical bowers;
But the plant to the flower is a sacrifice,
For it blooms but once, and in blooming dies.

Have you heard of the tale of the pelican
That lives in the African solitudes
Where the birds that live lonely are?
Have you heard how it loves its ' tender young
And cares and toils for their good?
It brings them water from fountains afar
And fishes the seas for their food,
In famine it feeds them—what love can devise?
The blood of its bosom, and in feeding them dies!

Have you heard the tale they tell of the swan,
The snow-white bird of the lake?
It noiselessly floats on the silvery wave,
It silently sits in the brake;
For it saves its song for the end of life,
And then in the soft, still even,
'Mid the golden light of the setting sun,
It sings as it soars into heaven;
And the blessed notes fall back from the skies,
'Tis its only song, for in singing it dies.

You have heard these tales; shall I tell you one,
A greater and better than all?
Have you heard of Him whom the heavens adore,
Before whom the hosts of them fall?
How he led the choirs and anthems above,
For earth in its wailings and woes,
To suffer the shame and the pain of the cross,
And die for the life of His foes?
Oh, Prince of the noble! Oh sufferer divine!
What sorrow and sacrifice equal to thine.

Have you heard this tale—the best of them all—
The tale of the holy and true?
He dies, but His life in untold souls
Lives on in the world anew!
His seed prevails, and is filling the earth,
As the stars fill the skies above;
He taught us to yield up the love of life
For the sake of the life above.
His death is our life, His loss is our gain,
The joy for the tear—the peace for the pain.

Now hear these tales, ye weary and worn,
Who for others do give up your all;
Our Saviour hath told you the seed that won
Into earth's dark bosom must fall—
Must pass from the view and die away,
And then will the fruit appear:
The grain that seems lost in the earth below
Will return many-fold in the ear.
By death comes life, by loss comes gain,
The joy for the tear, and the peace for the pain.
—American Monthly, Nov. 1890.

PRAYERFUL.

The teacher should pray for the school,
for his class as such, for himself or herself
for strength and wisdom and love and zeal.
This every faithful teacher will do, of course.
But, beside this, there should be earnest, faithful, continued prayer for each individual member of your class.
Remember them one by one, their individual wants, their foibles, their faults, their circumstances, their peculiar temptations.
Pray for them by name.
An excellent plan is to write their names in your Bible, and at night, before your devotions, look at the list, and take one at a time to the throne of grace and pray for that one as if it was the only name in the world.
It is wonderful how closely you will be drawn to such a one.—Standard.

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.)

CHAPTER XVII.

CIRCULATION.—THE BLOOD.

The blood is a thin, watery liquid in which float millions of little round blood-disks. As most of these are red, the blood looks red.

A French writer says: "You feel quite sure that blood is red, do you not? Well, it is no more red than the water of a stream would be, if you were to fill it with little red fishes."

"Suppose the fishes to be very, very small, as small as a grain of sand, and closely crowded together through the whole depth of the stream, the water would look red, would it not? And this is the way in which the blood looks red. Only observe one thing—a grain of sand is a mountain in comparison with the little red bodies which float in the blood.

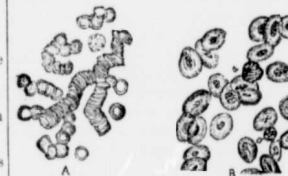
If the flesh is slightly cut anywhere, and the blood flows—as it will, so numerous are the blood-vessels—a clot soon forms at the mouth of the vessels and stops the flow.

This clot is really a little plug, formed by the separation of the parts of the blood.

THE ORGANS OF CIRCULATION.

The heart is placed a little to the left of the middle line of the chest. Connected with it is a set of tubes which carry blood to and from all parts of the body.

The little tubes which carry the fresh blood from the heart to every part of the body are called arteries; while those tubes which carry the blood back to the heart* are called veins.



A, blood-disks of human blood, highly magnified; B, blood-disks in the blood of an animal.

Connecting the arteries and veins are tubes much too small to be seen by the naked eye, called capillaries. So very fine are these that the blood disks have to go through them one at a time.

THE HEART.

The heart is a strong, muscular bag, in shape and size somewhat like a very large pear. Around it is a loose bag of connective tissue.

The heart is divided lengthwise, by a partition called the septum, into right and left halves. Each half is divided crosswise into chambers which open into each other.

The upper chambers are called the right and left auricles; the lower chambers, the right and left ventricles. As the blood cannot pass through the septum, the heart is really a double organ.

MOTIONS OF THE HEART.

The muscular fibres of the heart are so arranged as to contract the two auricles at the same time. The blood is thus sent into the ventricles, which, in their turn, contract together and so send the blood from the heart.

The walls of the auricles are much thinner than those of the ventricles, since they have to send the blood so short a distance, that but little strength is needed.

COURSE OF THE BLOOD.

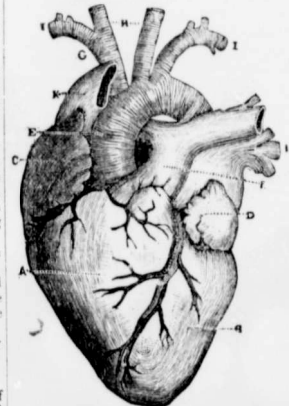
We may think of the heart as an engine which pumps the blood all through the body. The bright, pure blood is pumped out from the left side through a large artery called the aorta.

An express-wagon, you know, carries different kinds of goods. It may have machinery for a mill, a package of money for the bank, a silk dress for your mother, or a bicycle for you. The express-man takes

*The portal vein is an exception to this rule, since it carries blood from the digestive organs to the liver.

each thing to the right place, leaves it there, and then drives away.

So the blood passing from the larger artery into the smaller ones, and then into the capillaries, leaves one kind of substance with the bones, another with the muscles, and still another with the skin.



The heart. A, the right ventricle; B, the left ventricle; C, the right auricle; D, the left auricle.

If, by the right kind of eating, drinking, breathing, and other care, we have put proper materials into our blood, it will, in its course through the body, leave what each part needs for its work in keeping us strong and well.

Sometimes, when the express-man leaves a box at a house, he takes away at the same time a package, or a trunk for another place. The blood does this, too; but the material which the blood takes away from the different parts, is worn out or useless matter that must be made over or sent out of the body.

The tiny veins that join the capillaries unite, till at last they form two great veins which bring the blood back to the right auricle of the heart.

By the time it reaches the veins, it carries such a load of waste matter that it is of a dark blue color, as seen in the blood-vessels of the wrist. After eating, newly-digested food forms a part of this venous blood. Sent from the right auricle into the right ventricle, it is then hurried to the lungs.

There the wonderful change takes place which you learned about in studying respiration. The waste matter, largely carbonic acid, is sent off with the breath, and oxygen takes its place. The blood becomes bright scarlet again, and fit to nourish the body.

The veins then carry it to the left auricle and it starts on another journey through the system. It travels so rapidly, as to get



Circulation of the blood in the web of a frog's foot, highly magnified. A, an artery; B, capillaries crowded with disks; C, a deeper vein. The black spots are coloring matter in cells.

back to the heart in less than thirty seconds. From two quarts to a gallon of blood pass through a man's heart every minute.

The walls of the left ventricle are much thicker and stronger than those of the right, because they have to contract with force enough to send the blood through the body, while the right ventricle sends it only to the lungs.

This, then, is the course of the blood: Left side of the heart.—Pure fresh blood comes from the lungs and is sent to all parts of the body.

Right side of the heart.—Impure, blue blood comes from all parts of the body and is sent to the lungs.

This movement of the blood round and round in the body, is called circulation.

Little flaps of delicate skin, called valves, are so placed in the heart and veins, that if the blood tries to move in the wrong direction, the back-flow is prevented by the shutting of the valves across the passage-ways or tubes.

Brisk exercise of any kind makes the blood flow faster, and thus increases the warmth of the body.

The teamster swings his arms and rubs his hands together in cold weather, because his blood, being chilled, is moving slowly and he must quicken it.

The heat we feel after taking brisk exercise is more natural and more healthful than that which is obtained from nearness to a warm fire.

HINTS TO TEACHERS ON THE CURRENT LESSONS.

(From Peloubet's Select Notes.)

SUGGESTIONS TO TEACHERS.

Nov. 8.—Jonah 1: 1-17.

This chapter is so full of positive teaching as to forbid much lingering over trivial speculations upon open questions—Jonah's parentage, the kind of fish, the exact date. If the question arises, is it to be regarded as a veritable history? very probably the internal evidence and geographical allusions, references in Scripture and history, and certain typical foreshowings of the Messiah, are to your own mind conclusive proofs of the literal view, yet if another mind more satisfactorily grasps the allegorical view, time will be less profitably spent in argument than insisting upon the great truths which, from the allegorical view, are the only object of the Book of Jonah. Deferring too, our Lord's use of the story, and the interesting study of types (Israel charged with the conversion of the heathen, proudly refusing and sadly repenting), we find lessons intensely practical for Christians, who find in success a temptation to choose their own place and method.

I. Jonah goes downward (vers. 1-3). (1) By one act of disobedience his whole moral standard is lowered, like a mill-pond with a broken dam. He loses too (2) in purse. He must travel at his own charge when he goes away from God. (3) In company. He to whom God has spoken is herding with a motley crew of alien unbelievers.

II. Jonah goes stupidly (vers. 4-6). Genuine goodness is not stupid. The Holy Spirit quickens and enlarges all the faculties. On the contrary, nothing is so bewildering, so stupefying, so exhausting as sin. God himself calls the sinner "fool."

III. Jonah goes in disgrace (vers. 7-10). Picture the solemn scene of the lot. Jonah's indifference, it may be, until he finds the guilt coming home to him, or catches a glimpse of his comrades' horror. Then it dawns upon him that he, this eminently respectable and useful man, is standing before the gaze of God and the world, a shivering, sinful soul, and he sees his secret sin set in the light of God's countenance. He has come where every man must come, to a judgment day.

IV. Jonah goes to destruction (vers. 11-15) and involves others in ruin. Neither penitence, nor honest confession, nor good works, nor friendly sympathy, has power to remit the penalty of a broken law.

Illustration. Many families are suffering in health or estate, the consequence of a reformed man's former errors.

In the sailor's futile efforts we have a striking example of that misdirected zeal which sets works of self-denial in the place of simple obedience.

Illustration. A picture of self-righteous undertaking is found in the old myths of the daughters of Danaus, who were always filling a bottomless tub from leaky buckets. Spurgeon.

V. Jonah a warning (ver. 16). He who has lost the opportunity of calling his heathen comrades to repentance has been put to shame by their prayers, vigilance and unselfishness, and failing conspicuously in his duty as example, he now becomes a dreadful warning against disobedience.

VI. Scarcely saved (ver. 17) Where then shall the ungodly and the sinner appear?

WHO CAN TELL why good teachers are so scarce in the Sunday-school while so many talented Christians are doing nothing particularly on the Lord's Day?