

For the Pearl.

PHYSIOLOGY.—No. VII.

The nutritive particles of the food, which are obstructed or absorbed by the glands of the mucous coat of the intestines, are white like milk, and to them the term *Chyle* is applied: it has a combined sweet and saltish taste, it will coagulate when taken from the ducts, and like the blood leaves a fluid which is limpid; the coagulum or solid part has a slight pink tinge—this is its appearance in the human subject, but it varies in different animals.—If a dog or any other mammiferous quadruped, be killed a few hours after a meal, and the abdomen be opened, a very beautiful and interesting appearance is presented by the ducts of the absorbent glands, which are all loaded with this milky fluid, the Chyle:—and they may then be traced to the common receptacle, where they empty their contents.—This fluid, as we have already seen, is mixed with the mass of the blood; and the point where this mixture takes place deserves a notice. The veins which return the blood of the left arm to the heart, having formed into one common trunk near the point where that extremity is united to the body, are here joined by the vein which is returning blood from the corresponding side of the head; and near the point where this union takes place, the duct containing the chyle pours into the vein its contents:—the opening is guarded by a valve, so contrived as to prevent any of the blood being forced into the duct:—two favorable concurring effects are insured by this spot having been chosen for the mixing of the chyle and blood. The first is—That a sort of vortex is formed by the meeting of the two currents, one descending from the head, the other coming from the arm, and thus the chyle is sucked in:—the second is a more complete mixture of the fluids—which, now united, enter the heart to be thrown into the lungs. The spongy appearance of these is familiar to all—they are composed of an innumerable assemblage of minute air cells, and blood vessels, and when exhausted of all their air, they may be compressed into a very small compass.—The trachea or windpipe, when it arrives at the root of the neck, divides into two parts, one passing to the right, and the other to the left side of the chest, to join the lungs on each side respectively; and at the point of union, the artery and vein from the heart also enter the lung, thus forming what is called its root. So soon as the division of the windpipe has reached its appropriate lung, it again divides, and subdivides, until at length the minute subdivisions terminate in a small cell, the membrane of which is exceedingly thin,—and to this cell the blood of the veins is brought, by one of the minute radicles of those vessels, and thus its aeration or oxygenation is effected: its appearance is now changed from the dark colour of venous, to the bright red which is the characteristic of arterial blood:—and a corresponding change has taken place in the air, which had been taken into the lungs by inspiration;—it is found by experiment to have parted with some of its oxygen gas, and gained in lieu thereof carbonic acid gas; other changes also occur which it is not necessary to detail here, but those mentioned are the most obvious and important.—The blood, and also the chyle which had been mixed with it, are now rendered fit to be used to supply waste, etc., but they must first be returned to the heart,—and this is effected by another set of vessels, which begin where those terminate which carried the venous blood: and gradually uniting their smaller branches they form larger trunks, these again unite, so that it may be considered as just the converse of the subdivision of these before described;—(though in fact both descriptions are faulty, and may perhaps convey incorrect ideas, for the vessels cannot be strictly said to subdivide, when the branches and main trunk are simultaneously formed. What is meant by the sub-division of a vein, or artery, or any other tube, is simply this, that at a certain point the fluid which was contained in two separate ducts, now flows through a single one; or the opposite, viz. that the fluid instead of being conveyed by one, is now transmitted through two tubes; however, the revived blood is thus again conveyed back to the heart, and its passage through the lungs is called the lesser, or pulmonary circulation. The heart now propels it into the large artery called the aorta; from this, vessels pass off to every part of the body, to convey to it the fluid so necessary for its well being.—The heart, which is the prime mover in all these details, is a very strong muscular bag divided into four compartments: two of which are called *auricles*, because they have appended to them small bodies which are supposed to resemble ears,—*auris* being the Latin word for an ear. The other two are called ventricles. There is one auricle and one ventricle on either side of the heart, which communicate one with the other by means of an opening, guarded by a valve, which only allows transmission in one direction. The auricle on the right side, receives the blood of the system from the two large veins, which bring it one from the lower, and the other from the upper portion of the body:—from the right auricle it passes through the valvular opening into the right ventricle, from thence it is thrown into the lungs:—and when returned from those organs, as above described, it is received into the auricle on the left side of the heart, transmitted into the ventricle of the same side, and thence through the aorta into the system:—from whence it is again returned by the veins, forming in this manner a double cir-

cle. The arteries are always found empty at death, and therefore the first anatomists supposed them to contain air; and from this circumstance they have received the name of arteries, or air vessels:—they are formed of three layers or coats, the inner of which is serous, that is, a perfectly smooth polished membrane, so that the blood may have little or no friction to contend with in its onward passage:—the outer layer is muscular,—and by the contraction of this coat the pulse is formed—besides these there is a cellular layer, which unite the serous and muscular. At intervals, pairs of valves are found in the arteries, which prevent the blood being forced back in the direction of the heart:—they are formed in the serous coat by a redoubling or folding of it—each valve is of a semicircular shape, and as they are placed in pairs, opposite to each other, it may readily be imagined how the two would completely close the tube when forced together.

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From the Observer.

LAYS OF NEW-BRUNSWICK.

DIRGE FOR L. E. L. [MRS. McLEAN.]

BY JOHN K. LASKEY, AUTHOR OF "LEISURE HOURS."

"The harp is silent and the spirit gone,
And half of heaven seems vanished from the air."
Pilgrims of the Rhine.

Touch, lightly touch the Harp!
For life has lost a portion of its gladness!
Yes, one whose melody was love's deep feeling,
Has passed away, and we are wed to sadness.
Quick tears of sorrow to my eyes are stealing—
My heart is full of weeping, and sincere,
For one, we dearly loved, has passed from life's bright sphere.

Yes, lightly touch the Harp,
Let not its deeper tones the soul awaken.
And stir it to that grief, that knows no ending;
A gentler sorrow for the loved one taken
From truest hearts, that are with sorrow rending,
Beats the mourner for her of the Lyre,
For yet our hearts are warm with her soft words of fire.

Her's was no earthly spirit!
For 'round me is a spell of heaven-born beauty,
Caught from some fairy landscape in her dreaming,
And tales of love, with gentle, moral duty,—
A word unspoken,—which has caused the streaming
Of the last life-drop of a fondest heart;—
And should we not lament when such meek ones depart?

Her's were the heart and song,—
The starry sentinels of heaven's dominion,
Their spirit-beauty, and long years of glowing,
And the lost sister,* borne on Time's swift pinion
To some angelic region,—these were flowing
In songs of fairy language from her lyre,
And filled us with high hopes, and being's fond desire:—

They're tones that can not die!
For in my memory ring those thrilling numbers,
That came as from some angel's lyre or singing,
When man is mute in midnight's deeper slumbers.
Yes, in my memory still those tones are ringing,
Tones of the lyre that are forever hushed,
A melody, that from the soul pure as an angel's, gushed.

They're tones that can not die,
Of early infancy and happy childhood,
To hopes, like cloudless stars, all brilliant rising,
Painting life's scenes as bright as Nature's wildwood;
Of manhood, and old age the world despising,
And nature's scenes, and golden-palaced dreams,
And many a magic tale of fairy dells and streams.

But it is ever thus!
For thus do young hopes pass with all their splendour,
Still eager yet to cheer one heart of sorrow,
And hovering near it like a spirit tender,
They're forced to leave it to a lone to-morrow;
And thus our Sappho of old England's bowers,
Seemed but to stay to gladden life's lone and dark hours.

And it is ever thus,
For so wild Genius, like an eagle speeded,
And roaming o'er the world in radiant pluming,
Seeks for its lower kindred, thoughts high and unheeded,
And regions unexplored, forever blooming;
But little shares the glory of the gain.
And leaves its mortal home for heaven's own bright domain—

But who shall tune the Harp!
Oh! who its thrilling tones again shall waken,
The Harp of purest song and rapture breathing!—
'Tis silent now, all lonely and forsaken,
And lies, perchance, where mourning flowers are wreathing.
Where is the hand that tuned it?—Still and cold,
Or in a better world, it tunes a harp of gold.

Yes, who shall tune the Harp,
As it was tuned ere life's frail link was broken?—
I hear no accent, but the low wind's sighing,
As though to tell her loss, had Nature spoken,—
Peace to the youthful dead! Her name undying
Shall live within our hearts—Joy for the spirit,
That shall a bright and glorious world for aye inherit.

St. John, N. B., April, 1839.

*Miss Landon wrote a beautiful poem on "The Lost Friend."

CHOICE CHARADES.

CHARADE, is the name of a fanciful species of composition or literary amusement. It owes its name to the idler who invented it. Its subject must be a word of two syllables, each forming a distinct word; and these two syllables are to be concealed in an enigmatical description, first separately, and then together. The exercise of charades, if not greatly instructive, is at least innocent and amusing. Most of those which have appeared from time to time are not only destitute of all pleasantry, but are formed in general of words utterly unfit for the purpose. In trifles of this nature inaccuracy is without excuse. The following examples, therefore, are at least free from this blemish.

1. My *first*, however here abused,
Designs the sex alone;
In Cambria, such is custom's pow'r,
'Tis Jenkin, John, or Joan;
My *Second* oft is loudly call'd,
When men prepare to fist it;
Its name delights the female ear;
Its force may none resist it:
It binds the weak, it binds the strong,
The wealthy and the poor;
Still 'tis for joy a passport deem'd
For sallied fame a cure.
It may insure an age of bliss,
Yet mis'ries oft attend it;
To fingers, ears, and noses too,
Its various lords commend it.
My *whole* may chance to make one drink,
'Though vended in a fish shop;
'Tis now the monarch of the seas,
And has been an archbishop.

Her-ring.

2. My *first*, when a Frenchman is learning English, serves him to swear by. My *second* is either hay or corn. My *whole* is the delight of the present age, and will be the admiration of posterity.

Gar-lick.

3. My *first* is ploughed for various reasons, and grain is frequently buried in it to little purpose. My *second* is neither riches nor honours, yet the former would generally be given for it, and the latter is often tasteless without it. My *whole* applies equally to spring, summer, autumn, and winter; and both fish and flesh, praise and censure, mirth and melancholy, are the better for being in it.

Sea-son.

4. My *first*, with the most rooted antipathy to a Frenchman, prides himself, whenever they meet, upon sticking close to his jacket. My *second* has many virtues, nor is it its least that it gives name to my *first*. My *whole* may I never catch!

Tar-lar.

5. My *first* is one of England's prime boasts; it rejoices the ear of a horse, and anguishes the toe of a man. My *second*, when brack, is good; when stone better, when wooden, best of all. My *whole* is famous alike for rottenness and tin.

Corn-wall.

6. My *first* is called bad or good,
May pleasure or offend ye;
My *second*, in a thirsty mood,
May very much help ye,
My *whole*, though styled a "cruel word,"
May yet appear a kind one;
It often may with joy be heard,
With tears may often blind one.

Fare-well.

7. My *first* is equally friendly to the thief and the lover, the toper and the student. My *second* is light's opposite, yet they are frequently seen hand in hand; and their union, if judicious, gives much pleasure. My *whole* is tempting to the touch, grateful to the sight, but fatal to the taste.

Night-Shadow.

THE PEARL.

HALIFAX, FRIDAY EVENING, APRIL 19, 1839.

A writer in the *Miramichi Gleaner* of the 9th. inst. asks, "What does the Editor of the *Colonial Pearl* mean by his gratuitous remarks on defensive war?" We are happy to give our friend the desired information. After a long and impartial investigation of the subject, we are fully convinced, that by vindicating the propriety of defensive war, every description of war must also be vindicated. He that opens the door to let in what is called defensive war, cannot possibly shut it against any war. He cannot produce a syllable from the Bible in favour of defensive war, but it will justify offensive war also. And indeed the distinction between offensive and defensive war is less solid than verbal: the original ground of complaint is soon lost sight of, and the aggressor is often brought to act upon the defensive. In the first contest between Great Britain and America, how often did the parties change ground, and each act offensively as well as defensively? And who can state precisely where the act of aggression began, or where retaliation ought to have ceased? Now, as we did hope that our remarks on defensive war would be received by every candid and christian person in the same spirit of good will and friendship with which they were indited, we are free to confess that our object has been, to prove by the immutable verities of divine revelation, that war in every shape, is incompatible with the nature of Christianity; and that no persons professing that religion, and under the full and proper influence of the temper and mind of Christ, can adopt, pursue, or plead for it.