

[For the Deseret News.]

## The Nervous System.

BY ALEXANDER OTT.

Few persons are, perhaps, aware of the importance and utility of a certain peculiar apparatus in the animal body, called the nervous system.

The principles in the machinery of organic life are so precise—so mathematically correct, that without the harmonious co-operation of the different organs, the wonderful process of life would cease instantaneously. If thus for instance the oxygen\* and nitrogen† of the inspired air, were not separated when gathered in the lungs, the oxygen, which is absolutely necessary to the generation of animal heat, would not assimilate with the blood, and hence fail to supply the heart and the rest of the body with the life-giving elements of caloric.

In order, therefore, that the various and complete functions necessary to sustain animal life are being performed in a regular manner, the body is provided with the nervous system, which is the medium of communication from one organ to another, so that all the physical and mental functions are governed by that wonderful apparatus.

Thus we find that the nervous system is so peculiarly constructed that the changes of temperature during the four seasons, by sound constitutions are experienced without any material injury, while again the slightest anomaly or imperfection of those vital organs which is frequently caused by intemperance and debauchery, make a person liable either to sudden death or a lingering, painful disease with a fatal result.

The nervous system consists of the brain, cranial nerves, spinal cord, spinal nerves and the sympathetic nerve. The nerves present to the observant eye, a complex, soft and multitudinous mass of round, flat, white cords which, at one extremity, join the organ connecting the brain with the back-bone, and at the other are attached to all the textures of the body.

The brain signifies anatomically and physiologically that part of the nervous system which is connected with the skull-bones, that are provided with the membranes or lining of the brain. The brain is of a pulpy mass, quite soft in childhood, but which with the development of the body, assumes a more solid organic form of a white, gray color, with undulatory windings at the surface.

The spinal cord, which is contained in the back-bone, performs important functions for the upper and lower extremities, has fissures dividing the spinal into two lateral cords, which are united by a thin layer of a white, marrowy substance, and the lateral cords are each divided by furrows into three distinct sets of fibres, viz: the columns of motion and sensation.

The sympathetic nerve, one of the most interesting and important organs, has many knots or ganglia running along the spinal column, which are of so sensitive a nature that even the least pressure or puncture is severely felt; hence, blows received where ganglia are located, generally result in great pain, and wounds are, if not properly treated, mortal.

The brain and nerves are composed of a half coagulated albuminous substance, containing remarkable fatty principles which can be extracted by means of alcohol and ether, and about 80 per cent of water. The chemical and physiological nature of the constituents of the nervous system are but imperfectly known; by an analysis, however, the existence of two very interesting bodies has been ascertained, viz: the cerebrie acid and the oleo phosphoric acid. The former contains carbon, hydrogen, nitrogen, oxygen and phosphorus; it can be dissolved by being boiled in alcohol, and forms with hot water a soft, gelatinous mass. The latter, or the oleo-phosphoric acid is a soft oily substance, constituting an important life-sustaining agent of the brain.

The spinal nerve, the true nature of which has not yet been fully ascertained, presents to the physicist a structure of wonderful accuracy. Very delicate filaments sometimes hardly visible to the naked eye, and housed in small cellular with knots or ganglia, form a remarkable subtle ramification or texture of nerves of the greatest sensibility.

The cranial nerves are of vital importance to the animal system, being connected with the brain and embracing the organs of seeing, smelling, hearing, tasting and speaking or articulating sounds.

It may perhaps be interesting to the reader to know, that about twelve years ago, experiments relative to the test of the different organs, were made in Paris, with particular reference to the sense of smell. Before a number of savants, a beautiful specimen of a pink was presented to each person present. The majority were delighted with the excellent aroma, a few pronounced its scent weak, the olfactory nerve of two individuals was not at all affected, and one person stated the scent of that flower quite offensive. So in reference to the organs of hearing, experiments have shown, that very excellent music had no or very little effect upon some individuals while something jarring or meddler delighted them. These interesting phenomena are supposed to be originating either in a non-development or idiosyncrasy of the respective organs.

The nervous system being of a delicate nature, even in its sound state, is materially and frequently fatally injured by debaucheries or excesses of any kind, hence the utmost care should be taken to maintain the equilibrium of

that important apparatus of the human system.

\*The oxygen, which element was discovered in 1774, sustains animal life and all the ordinary phenomena of combustion. It is a little heavier than atmospheric air. When disengaged from the nitrogen, it appears as a gas.

†Nitrogen is a little lighter than air, is colorless, tasteless and odorless. It sustains neither animal existence nor combustion, and is particularly characterized by negative properties.

Hydrogen, a characteristic compound of the water, is tasteless, colorless and odorless when quite pure, but when prepared from iron, it smells very strong and offensive. Being much lighter than the atmosphere, 100 cubic inches weighing under the circumstances of an ordinary temperature, 2.14 grains, it was formerly used for lighting, air-balloons, being prepared for that purpose from zinc or iron, and dissolved sulphuric acid.

## The Present Revolution Foretold Sixty-Five Years Ago.

One of the English field officers, who served against the United States during the Revolutionary war, after his return to England, wrote an account of his life and adventures, which was published in London in 1801. In many respects he was a remarkable man, but most remarkable in the prophecy he uttered at Philadelphia about the year 1793, which were published in his autobiography in 1801. These prophecies now coming to pass, constituted portions of a conversation held at the dinner table of General Dickenson, brother to the famous Dickenson, better known to many at that day by his *nom de plume* of the "Pennsylvania Farmer."

"Upon a certain occasion, only a few weeks after peace had been definitely concluded between the Thirteen Colonies, become Independent States, and Great Britain, General Dickenson requested the Englishman's opinion of our Government and its stability. His reply was as follows:

"Sir, as long as General Washington and the principal military characters and leading men in Congress, who have brought about this revolution, are alive, the Government will remain as it is, united; but, when all of you are in your graves, there will be wars and rumors of war in this country. There are too many different interests in it for them to be united under one government. Just as this war commenced, you were going to fight among yourselves, and would have fought had the British not interfered. You, then, one and all, united against us as your common enemy; but one of these days the Northern and Southern powers will fight as vigorously against each other, as they both have united to do against the British. This country, when its population shall be completed, is large enough for three great empires. Look, gentlemen, at the map of it; view how irregular the provinces are laid out, running into each other, look particularly at the State of New York, it extends one hundred and fifty miles in length, due north; and in no place, in breadth, above fifteen or twenty miles. No country can be said to have a boundary or frontier, unless its exterior limits are marked by an unfordable river or chain of mountains not to be passed but in particular places. The great finger of nature has distinctly pointed out three extensive boundaries in your country:—The North River, the first; the great Potomac, which runs three hundred miles from Alexander to the sea, unfordable, the second; and the Mississippi the third and last. When the country of Kentucky is completely settled, and the back country further on the banks of the Mississippi shall become populous and powerful, do you think they ever will be subjected to a government seated at Philadelphia or New York, at the distance of so many hundred miles? But such a defection will not happen for a long period of time, until the inhabitants of that country become numerous and powerful. The Northern and Southern powers will first divide and contend in arms.

I will risk a further opinion relative to America: Should I live to a good old age, I am confident that I shall hear of the Northern and Southern powers in America waging war with each other; when one party will solicit assistance from France, the other from Great Britain. It will then depend on the judgment of those men who, at that period, may be at the head of the British and French councils, whether or not they will interfere in American disputes. In my humble opinion, it would be better for both countries to let them settle the matter among themselves. I will be so bold as to offer another opinion:—We should give up Canada and Nova Scotia to the Americans, provided we could make this sacrifice the foundation of an alliance offensive and defensive with the United States. Then we never should be obliged to send the prime of the British army to die like rotten sheep in the West India Islands. In America we could recruit forces for the West Indies with men inured to the hot climate, who would not suffer by death and sickness in any degree equal to the new levies sent from England; with the additional advantage of keeping our army entire and in full vigor at home. I anxiously hope and trust I shall live to see the day when an alliance offensive and defensive will be formed between the two countries; as Great Britain and America may defy the united powers of all Europe. Surely, such an alliance between the two countries would be more advantageous and natural for both, than with France.

I remember perfectly well General Dickenson's reply to my opinion: "God forbid that I should ever live to see that day, or that such a dire calamity should ever befall my country after my death! Yet I am afraid that there may be some just ground of suspicion for the foundation of your opinions."

Again, in another place, the English officer remarks: "The Americans, at that time, acted on the truest principles of liberty and honesty. Little did they suspect that, so young as they now are as an independent nation (for their independency has existed only about twenty odd years, dating from 1776), veracity and corruption should have established its ascendancy with such rapid strides, of which we have at this day such convincing proofs; for, although the States of America are not thirty years old, infants, they may be called, as a power, yet veterans are they in corruption and State intrigue. I claim no greater merit for my opinions relative to America, than is due to Mother Shipton, who prophesied that London would go to Hampton; and we all know that it is already arrived within a few hundred yards of it."

On a further observation, I recollect, I made at General Dickenson's table: "In process of time, when your Western territories are perfectly settled from the Ohio to the Mississippi, which in time cannot fail to be perfected; and when your Western and Southern Colonies become in population as numerous as the sands of the sea—then will the riches of Poos attract the attention of the Americans to the conquest of Mexico and Peru. This is an object which, from the magnitude of its wealth, is certain in time to take place, but, as that cannot happen for at least fifty or an hundred years (the Mexican war occurred forty-five years after these words were printed, and about fifty after they were written). I think, gentlemen, we should not postpone taking a part of the wealth of that country immediately; therefore, I freely offer my services to the Congress on such an expedition, and on my honor I will serve them as faithfully as I have my king and country! For I am a soldier of fortune." So, taking the bottle, I filled a glass, and drank to an expedition against the Golden Spaniard. My toast was productive of much laughter, mirth, and good humor, together with many observations on the situation and wealth of the Spanish Colonies so contiguous to them; and I am inclined to believe that, at that time, even the company did not think that the possession of the wealth of Mexico was quite as difficult, or required so many years application and study as to arrive at the knowledge of the Philosopher's stone."

## ABSTRACT

Of Meteorological observations for the month of August, 1861, at G. S. L. City, Utah, by W. Phelps.

MONTHLY MEAN.		BAROMETER.
7 a.m.	2 p.m.	9 p.m.
25—	25—	26—
Monthly mean		Thermometer attached.
7 a.m.	3 p.m.	9 p.m.
78	82	74
Monthly mean		Thermometer open air.
7 a.m.	2 p.m.	9 p.m.
71	81	74
Monthly mean		Thermometer dry bulb.
7 a.m.	2 p.m.	9 p.m.
77	83	74
Monthly mean		Thermometer wet bulb.
7 a.m.	2 p.m.	9 p.m.
68	76	67

Highest and lowest range of Barometer during the month.

Max. 25.—  
Min. 25.—

Highest and lowest range of thermometer in the open air during the month.

Max. 92°  
Min. 75° zero.

The amount of rain water which fell during the month was 1.468, which is only 32 parts of a thousand, short of one and a half inch of water in August. This is more than is common for this mountain climate. Vegetation is forward and fine.

## MONTHLY JOURNAL.

- 1 Clear and warm.
- 2 Cloudy; shower at noon, ten clear.
- 3 Air clear; afternoon flying clouds; strong wind at night.
- 4 Cloudy and warm.
- 5 Air cloudy; thunder shower at 5 p.m.
- 6 Cloudy; shower at 8 p.m.; new moon, 7h 46m. a.m.
- 7 Cloudy; very growing.
- 8 A.m. cloudy; p.m. clear.
- 9 Cloudy.
- 10 Clear.
- 11 A.m. hazy; p.m. clear.
- 12 Cloudy; sprinkled.
- 13 Clear and hot.
- 14 Clear do do.
- 15 Clear do do.
- 16 Air cloudy; then clear.
- 17 Clear and hot.
- 18 Clear and hot with some light clouds.
- 19 Clear and hot.
- 20 Cloudy; shower at 4 p.m. Full moon 4h. 26m. a.m.
- 21 Clear.
- 22 Clear.
- 23 Clear.
- 24 Clear.
- 25 Clear.
- 26 A.m. clear; p.m. cloudy.
- 27 Clear and serene.
- 28 Clear do do.
- 29 Clear do do.
- 30 Clear do do.
- 31 Clear do do.

—“Our Own’s” description of the Bull Run affair is now styled Russell’s Running Account.

## Falls of Niagara Surpassed in India.

Did any of our readers ever hear of the Gairtoppa Falls, near Honore? If not, they will probably read with some pleasure a description which has just appeared in the Calcutta papers. It is curious that a fall six times the depth of Niagara should remain almost unknown. From the village of Gairtoppa, reached by a river of the same name, the writer was carried for twelve miles up the Malimunch Pass, and reached the Falls Bungalow about three hours and a half after leaving the top of the pass. An amphitheatre of woods, and a river about five hundred yards wide, rushing and boiling to a certain point, where it is lost in a perpetual mist, and an unceasing deafening roar, must first be imagined. Leaving the Bungalow on the Madras side of the river, and descending to a position below the river level, you work your way up carefully and tediously over slippery rocks until you reach a point where a rock about twice the size of a man's body juts out over a precipice. Resting flat upon the rock, and looking over it, you see directly before you two out of the four principal falls; these two are called the “Great Fall” and “The Rocket.” The one contains a large body of water, the main body of the river, perhaps fifty yards across, which falls massively and apparently sluggishly into the chasm below, and the other contains a smaller body of water, which shoots out in successive points of rocks, till it falls into the same chasm.

This chasm is at least nine hundred feet in depth—six times the depth of Niagara Falls, which are about one hundred and fifty feet, and perhaps a quarter to half a mile in width. These are the first two falls to be visited. Then move a little below your first position, and you will observe first a turbid boiling body of water of greater volume than the Rocket Fall, rushing and steaming down in the same chasm; this is the third fall, the “Roarer.” Then, carrying your eye a little further down, you will observe another fall, the loveliest, softest, and most graceful of all, being a broad expanse of shallow water falling like transparent silver lace over a smooth surface of polished rock into the same chasm; this is “La Dame Blanche,” and the White Lady of Avenel could not have been more graceful and ethereal. But do not confine yourself to any one place in order to view these falls; scramble every where you can, and get as many views as you can of them, and you will be unable to decide upon which is the most beautiful.

And do you want to have a faint idea of the depth of the chasm into which these glorious waters fall? Take out your watch and drop as large a piece of rock as you can hold, from your viewing place; it will be several seconds before you even lose sight of the piece of rock, and then even it will not have reached the water at the foot of the chasm—it will only have been lost to human sight; or watch the blue pigeons, wheeling and circling in and out of the great fall within the chasm, and looking like sparrows in size in the depths beneath you. But you have yet only seen one, and that not perhaps the loveliest, and at least not the most comprehensive, view of the falls. You must proceed two miles up the river above the falls, and cross over at a ferry, where the waters are still and smooth as glass and sluggish as a Hollander, and proceed to the Mysore side of the falls, walking first to a point where you will see them at a glance, and then descend as near as you can to the foot of the falls, to be drenched by the spray, deafened by the noise, and awe-struck by the grandeur of the scene, and by the presence of the Creator of it, in the perpetual rainbow of many and brilliant hues which spans the foot of the chasm.

## Anecdote of Governor Seward.

Cozzens, in his last *Wine Press*, tells an old story, which, he says, few persons have not heard. When Governor of New York, Seward, in those pre-railroad days had occasion to visit a certain part of the State, and accordingly mounted upon the top of the mail-coach, in order that he might enjoy his segar and the scenery. The driver was an inquisitive fellow, and his passenger humored him.

“Land agent?” said the driver.  
“No,” quoth Seward.  
“Selling goods?”  
“No.”  
“Travelling preacher?”  
“No.”  
“Circus?”  
“No.”  
“What then,” said the baffled driver, “is your business?”  
“Governor,” replied Seward, with a tranquil puff.  
“Governor of what?”  
“Governor of the State of New York,” replied the smoking passenger with composure.  
“Get out!”  
“Well, I can convince you of that,” said Seward, “for here is a man on the road with whom I am acquainted,” and as the stage passed by, he saluted him. “Good morning, Mr. Bunker, I want to ask you a question—am I not the Governor of the State of New York?”  
“No, by thunder!” was Bunker’s unexpected answer.  
“Who is, then?” said the startled smoker.  
“Thurloew Weed!”

—The cod fishery is represented as being poor this season by the American, British and French fishermen.