

Scientific.

Science and Cultivation.

Few persons are aware of the wonderful effect of science and cultivation upon the wild vegetation of the earth, or how much has been done and how much remains to be accomplished, in transforming the most noxious fruits into luscious and healthful food. During the present century most wonderful improvements have been made in cultivating grains, vegetables, grasses, fruits and flowers, but the results of cultivation in earlier times are equally marvellous.

To the practical cultivator, as well as the horticultural antiquary, this subject abounds in material for most entertaining and instructive research. All our cultivated grains, vegetables, fruits and flowers, which minister to the comfort, the support and pleasure of civilized man, are the products of science and art. Our wheat, rye, barley and oats are the products of cultivation, derived from wild originals so little resembling the cultivated varieties that the relationship is discoverable only by the botanist.

The potato, now of almost universal use, originated from a bitter root, which grows wild in the mountains of South America, where it was never an article of diet until it returned from Europe, where, by cultivation, it had been transformed into one of the most valuable vegetables known to man.

Our carrots originated from a wild poisonous plant, found growing on the cliffs of England. Our crisp, delicious celery was derived from an acrid, disagreeable wild plant, the *Opium Cravencens*.

The worthless old wort plant of seven leaves, and not weighing more than half an ounce, was the insignificant parent of all our fine varieties of cabbage, cauliflowers, brocoli, and brused sprouts.

Our ruta-baga turnips have been produced by cultivation from a worthless rape (*brassicarapus*), and our best varieties of turnips are the improved progeny of the turnip rape (*brassicarapa*), which in its wild state is small, fibrous, bitter, and unfit for food.

The kohlrabi is a hybrid derived from the turnip and cabbage—the result of scientific culture.

Our tender lettuce, the first vegetable of the vernal year, is the improved offspring of an acrid, bitter plant. Our varieties of beans, peas, onions, beets, parsnips, tomatoes, and in fact all our vegetables, are the product of human science and industry, and derived from plants originally worthless for food.

Nearly all our cultivated fruits are also the product of human skill and science. The wild crab of Europe—not the Siberian crab—is the parent of all our fine varieties of apples. From a wild fruit, no larger than a musket-ball and as acrid as an unripe persimon, scientific culture has produced the many varieties of delicious pears.

The improvement in horticulture, flowering shrubs, and plants, has been even more general and wonderful than in agricultural products; and the reason probably is, that the patrons of Flora are more willing to pay a high price for her improved products than those of Ceres, or even those of Pomona.—D. A. Robertson.

A huge animal.

In the city of Cambridge, three miles from Boston, is the Museum of Comparative Zoology. Here are collected curiosities from all parts of the earth. Rocks, Fossils, Corals, Shells, Skeletons, and various other samples of different ages and climates, are here brought together for the benefit of those who cannot travel the world over to see its wonders. Many boys and girls visit this place, yet thousands there are who cannot even see these, but who, sitting by their home fires, can read of what others have seen, and to them we send a description of the Megatherium Cuvieri.

"What a name!" some young readers may exclaim. "Megatherium Cuvieri! How long and hard."

Well, the name is not larger than the animal, for that, from the nose to the tip of the tail, is eighteen feet. Just think! Take three tall men and place them with the feet of one against the head of another, and you have the length of this huge animal. It is higher than an elephant, and its legs are colossal. Each leg, when covered with flesh and skin, must have been larger than the body of a man. Prof. Dana says, "Its massy limbs are more like columns for support than organs of motion," and as we stand looking at them, we realize the force of his remark, for such legs never move rapidly. A lumbering gait such an animal must have had, and well it was, for if he could have moved swiftly, all small animals must have been trodden under his immense feet.

At first we think he has four feet but upon closer examination, the two front ones prove to be hands. The fingers are six inches from joint to joint, and the nails, which resemble claws, are four or five inches in length, and from the wrist to the elbow is three feet! The hind feet have heels and toes like the human foot, and are nearly a yard in length.

The tail is a curiosity. It consists of immense bones firmly locked together, and the column thus formed is triangular in form. Where it joins the huge body it is a foot in diameter, but tapers, and at the end is a small bone. This tail must have been as stout as the legs, and when the great unwieldy Megatherium wished to raise his head to grasp the limbs of trees which served as his food, he lifted his head, then his fore-feet, or arms, seized the trees with his claws, and then, tipping back his

body, which was larger than a hog's head and twice as long, he rested his immense weight on his tail, which, with his hind legs, formed a tripod on which the heavy body could be supported, while with his mouth he stripped the trees above him of their foliage. His four ribs are from three to four feet in length, and three inches in width.

We can imagine this slow monster, raising his head eighteen feet, cropping the limbs of the trees, and then, kneeling on his fore-arms, drinking from some stream near by. His mouth is narrow and long.

When man came upon the earth, animal life became less in size, more compact, and more perfect. The earth assumed a new appearance, and the giant quadrupeds which had traversed its surface either decayed altogether, or were buried beneath the soil, to fossilize and await the examination of the coming ages, when the new creation, man, should walk the earth. These fragments of the past, our naturalists gather as silent witnesses of the history of the earth, and as testimonials of the progression upon its surface.—*The Student and Schoolmate.*

SOAP GROWING ON TREES.—Soap berries are to be found in immense quantities throughout Alaska. They grow on a bush about the same in appearance as whortle-berries. When ripe they are red, of a juicy and quinine taste, and generally biennial. One quart taken and placed in a tub the size of a bushel, when stirred, will completely fill the tub with froth, and the more it is stirred with the naked hand and arm, the stiffer it becomes, until you can cut it with a knife. It is eaten with horn or wooden spoons, all the family sitting round the tub. It is undoubtedly an acquired taste, but the commodity is much sought for. The froth is of a beautiful pink color. Green berries will make nearly the same amount of froth, but it is of a white color and is not so highly flavored. Foreigners stir it with port or sherry wines, and add sugar, in which case it is a delicious luxury. Large quantities are dried, by being placed in a tub with their leaves, forming a cake, which is placed on wicker tables, with light fires under and the sun overhead. When dried they will keep in a dry place for some years. The dried berries are black and look dirty. A piece two inches square, beaten in a water-pool, will fill it full of froth of a dark pink color.

ELECTRIC LIGHT AT SEA.—The French ocean steamer *St. Laurent*, while recently in New York, exhibited a powerful light which it had tested on its voyage across the Atlantic. Its brilliant rays will penetrate the densest fog as well as the blackest darkness, and thus prevent danger of collision at sea. By means of it, night signals could be interpreted more easily than day signals. It can also illuminate the hold of a ship, so that the men can work there at night as well as by daylight. The light itself is very cheap, though the apparatus required for making it is expensive.

THE MOST EXHAUSTING LABOR.—The idea is often ridiculed by uneducated people, that students and those whose professions require constant mental exertion, really work as hard as those engaged in manual labor. But from the chemical experiments of Prof. Houghton of Trinity college, Dublin, it is proved that two hours of severe mental study abstract from the human system as much vital strength as is taken from it by a whole day of mere hard work.

RECLAIMING THE DESERT.—An Italian engineer, after a long residence in Africa, proposes the stupendous idea of converting the great desert of Sahara into a fruitful region, by means of artesian wells.

WHERE DID THEY COME FROM?—It is said that sixteen kinds of fossil horses have been discovered in North America, and yet there were no horses here when the Europeans first came.

DYSPEPSIA, OR INDIGESTION.—Dr. Cornell, in his lecture to the Ladies' Physiological Institute, on the stomach and gastric juice, showed how this very troublesome, and sometimes fatal disease, is produced. 1. By eating too much. 2. By taking cold water with the food. 3. By making the stomach do what the teeth ought to do. 4. By general debility arising from laziness, breathing impure air and taking into the stomach alcoholic liquors. 5. By undue exposure to heat and cold. If these little everyday items were properly attended to, dyspepsia would soon be among the things that once were.

The ruin of most men dates from some vacant hour. Occupation is the armor of the soul. I remember a satirical poem, in which the devil is represented as fishing for men, and sitting his baits to the taste and business of his prey; but the idler, he said, gave him no trouble, as he bit the naked hook.

An Irishman called at a drug store to get a bottle of "Johnson's Anodyne Linctament" for the Rheumatism, the druggist asked him in what part of the body it troubled him most, "Be me soul," said he, "I have it in every houl and conner er me."

For loss of Cud, Horn Ail, Red water in Cows; loss of appetite, rot, or murrain, in sheep; thick wind, broken wind, and roaring, and for all obstructions of the Kidneys in horses, use "Sheridan's Cavalry Condition Powder."

Correspondence.

For the Christian Messenger.

An Explanation.—Articles.

DEAR BROTHER,—

Bro. Davis complains of a certain sentence in my letter reading thus, "This cry 'no creeds' is quite frequently raised among us for party or sectarian purposes." Perhaps the expression was not sufficiently guarded; but I can assure my dear Brother that reference to him was not intended. I do not believe that any thing he has to say upon the question is for "party or sectarian purpose," and of some others who agree with him on the point under discussion, I am free to make the same acknowledgment. I once heard a preacher say to a Baptist sister, "There is no difference between us except that you go by the 'Articles,' while we take the New Testament for our guide." While penning the lines above quoted I had this incident in mind, in connection with the fact that many, for the sake of gaining proselytes are ever boasting that they have no creed. On the occasion referred to I did not interpose any remark, not having joined at all in the conversation. Had I done so I might have said—"Sir, you are mistaken. You say you go by the New Testament. Baptists profess to do this. They however frankly avow their sentiments, derived, as they believe from the Word of God, you have your creed, they have theirs; the difference being in this—they declare it in definite language, while you see fit to withhold it. But the opinions of each, if written out would greatly differ."

Upon the whole we need not be sorry for the recent discussion upon the subject of *Articles*. The brethren here generally regret that it should have been provoked; but it is no harm to give them an airing. Baptists will not be satisfied with any thing that cannot endure the light. I suppose any church, as an independent body of believers may express their doctrinal views, or withhold any definite summary of their faith as they may feel disposed. But when churches associate for mutual edification and harmonious effort, general agreement is necessary, and the more nearly their declared views coincide, the less ground there will be for distrust and alienation. I for one should be pleased, and I am far from being alone in the matter, if our Island Association could unanimously agree to adopt the same words employed by the N. S. Association in indicating their religious belief. But since there are some among us who object, brethren beloved, who claim, as they desire it, a place in the Baptist fraternity, we think we should in this matter receive the admonition of an apostle "Follow after the things which make for peace." And here it may be well to give notice to those whom it may specially concern that at the next meeting of our Association in Cavendish I intend to propose a change of the 6th Article of the Constitution, inserting in its place words somewhat to this effect: *In their Faith and Practice the churches composing this Association are in general agreement and sympathy with the Churches embraced in the Baptist Convention of Nova Scotia and New Brunswick.* Bro. Davis authorizes me to say that he will give this his sanction. It will be more satisfactory than the Article, as it now stands, to those who object to the term *Calvinistic*, and will, I think, relieve the minds of the brethren on the Island as well as elsewhere who deprecate anything that tends to a severance of the ties that have hitherto bound our churches together.

M. P. FREEMAN.

For the Christian Messenger.

The Grand Pre Seminary.

DEAR EDITOR,—

I had the pleasure a few days ago, of attending the examination at the "Grand Pre Seminary" in Wolfville. Every one who witnessed those pleasant and thorough examinations of the classes, in Arithmetic, Algebra, Geometry, Parsing, Analysis, and history of the English language; Rhetoric, Readings from Milton and Longfellow's Evangelical, History, Botany, Physiology, Electricity, &c., must have been struck with the liberal range and the thorough mastery of the subjects studied. Rigid scientific exactness is here adorned with all the graces of elegant literature. A pleasing feature of our Seminary is, that some of the choicest female minds of the denomination are here fitted for usefulness, and early associations are formed amongst them; which will continue through life, and create an "esprit du corps" that will be a great advantage, individually, socially, and

religiously. It would be suicidal to close such an institution. A little effort would easily secure as many pupils as could well be accommodated. Our teachers are excellent, and well deserve encouragement. Now is the time to befriend the institution. In some essential points its prospects were never so fair as now. The household furniture which it has used but never owned, is liable to be removed from the building, by an event which no human sagacity could foresee or obviate. It can be bought for the institute at a very low rate, much lower than it could be replaced for. An appeal has been made to the churches to aid in buying it. Let pastors and friends generally make a suitable effort and the thing is done. Let them neglect the appeal now and we tremble for the result. We have so many enterprises on hand, and are so weak, that the prospect is very poor in my field. But God willing I intend to do what I can to raise something for so good an object. We have done but little for this while other objects have been supported. Is it not time to do something for our Female Seminary?
Yours in the Lord,
D. FREEMAN.

Canning Dec. 22, 1868.

Religious Intelligence.

The Awakening in Spain.

The present liberal movement in Spain, which so earnestly advocates religious liberty, is to my mind a direct answer to prayer.

There are in the south of Spain about three thousand evangelist Christians. I have often joined in prayer with with one of their most faithful preachers. His prayers were the most intense, yearning, thrilling petitions put up in the name of Jesus to Him who hears and answers prayer. Many such petitions from ardent Spanish Christian hearts have ascended during the past ten years to our heavenly Father pleading for Spain. They have been signally answered. The gospel and gospel influence and thought are to-day spreading rapidly throughout that beautiful land. The hearts of Christians in the United States are responding to their Master's voice as he speaks to them in his providence and calls them to remember the many millions who speak the Spanish language. We who are specially laboring in the Spanish and Spanish-American fields rejoice with intense joy, and with earnest thanksgiving to our prayer-hearing, ever-faithful God, work on with renewed hope and trust.

Many evangelical Spanish Christians have been laboring for Jesus in the south of Spain for the last ten years. They now number, as I have already said, about *Three thousand*. They have themselves printed the New Testament in Spanish. This they did in secret, by working at night in a cellar. Their means only allowed them to print a limited number of copies. They have asked that the American church shall aid them in preparing a large edition. They have also printed a Catechism for instruction in Christian doctrine. They have also had the forethought to send a number of their most gifted young men to Switzerland, to have them prepare themselves for the ministry. Some of them are men of superior talents. These young men have for some time been under the best of evangelical influences, and are now ready for active and skillful work.

A number of young Protestant Spanish ladies have been educating themselves in the south of France, so as to return to Spain in the capacity of teachers or Bible-readers.

These Protestant Spaniards have already circulated many New Testaments, Christian tracts and books. Bibles, New Testaments, Christian books and tracts might be circulated to-day throughout the length and breadth of Spain by the native instrumentality already in the field, who are longing and praying that their country may be won for the Saviour.

The fact that there is a native instrumentality prepared for immediate effective and extended Christian effort in Spain, and ready and anxious to cooperate with the American churches in making a decided and bold effort to win their native land for Jesus and his truth, ought to be a very strong argument to induce American Christians at once vigorously to enter that field. If Bibles, New Testaments, Christian books and tracts could be put into the hands of these Spanish Protestants for wide distribution, and some system of work organized so as to send them from point to point in Spain; if a depository for Bibles and tracts and books could be opened in Madrid, and a hall procured in that capital for the preaching of the word by some of these Protestant Spaniards, much might be thus done for Spain and the cause of the gospel.

H. CHAUNCEY RILEY,

Minister of the Spanish-American congregation in New York city.

NEW YORK PASTORS' CONFERENCE.—The monthly meeting of this body occurred on the 7th inst. The Conference is composed of pastors who reside in and around New York. Members are proposed at one meeting and elected at the next. Reports from the churches indicated quiet and a good degree of prosperity. A large number of churches during the past month have added members by baptism. The essay was on Melchisedeck. The debate on the plurality of elders was quite spirited. A majority of the Conference seemed to favor the idea; many contending that it was the ancient order and evidently apostolic. The question for the next meeting, on the relation of baptism to communion, is intended to cover the whole ground touched upon by Dr. Caswell and others, and will place the pastors of this vicinity on the record on the question of communion.