

Agriculture, etc.

DEEP AND SHALLOW PLANTING.

Some good farmers advocate deep planting by far too indiscriminately, and they refer to the result of well conducted experiments to prove that it is much better than shallow planting. On the contrary, other men will show by experiments conducted with great care and impartiality, that very shallow planting is best, and the success of their crops appears to depend upon it. The theory and practice of the latter is quite as correct as the former, notwithstanding they are directly opposed to each other. But let those farmers change places, and they will change views with their farms, and still be as opposed to each other as before, yet both be right. When the soil is friable, sandy, or very light, it is best to plant seeds deep, especially in dry weather, unless they are so small that they would not be able to reach the surface. This applies particularly to warm, light, sandy, gravelly loams, which dry out readily after heavy rains. If Indian corn, potatoes, and peas be planted from four to six inches deep, where the soil is pulverized to a good depth, the roots being deep in ground will absorb moisture while the surface is quite dry. The young plants find but little difficulty in coming up through light porous soils. But where there is excess of water in a heavy soil, if seeds be planted deep, it is frequently impossible for the little plants to force their way to the surface. This is especially true of those plants of which the cotyledons are carried up to the service of the soil, as beans, cucumbers, flax, and many other plants. On many light, mellow soils there is little danger of covering potatoes, peas, corn and other cereals too deeply; while if covered shallow, unless the season be favorable, and not too dry, the results will be less satisfactory. On the contrary, if such seed be covered deeply in heavy soils where a crust often forms soon after a heavy rain, many of them could never force a passage to the surface. For this reason, it is important on heavy soils to cover the seed shallow, and still have it deep enough to germinate.—*American Agriculturist.*

PLUM TREES.—It is said that the application of half a peck of salt in the spring around a plum tree, will be found very efficacious in promoting its growth and fruitfulness, and also in protecting it from disease. Salt is an essential ingredient in all composted manures intended for plum trees, and is highly promotive of health and fruitfulness.

The Stuyvesant pear tree in New York city is in full blossom for the two hundred and twentieth season.

The Oil Wells.

The discovery of petroleum is one of the great incidents of the nineteenth century, and stands in the same line, almost, with railroads and telegraphs. It is really a greater benefaction to the human race than gas, for while that, as a household convenience and means of civilization, is confined to cities and large towns, the kerosene lamp brightens the remotest farmhouse. Petroleum, too, has grown to be of vast importance commercially, and, as an article of export, takes rank close beside cotton and the cereals.

Petroleum has a high value as a remedial agent, and its use in the mechanic arts is very considerable and daily increasing. Although oil is said to be found now in almost every State in the Union, in Canada, and Spanish America, yet the great centre of the trade is near where it was first discovered—Western Pennsylvania; and it is, we believe, upon the real or fictitious ownership of lands in the famous Venango region that most of the petroleum stock companies are based.

Appearance of the famous Pithole Oil Well.—A number of men were heaving and hauling logs, and making corduroy roads, to render easier the ascent to the top of the bank. Another number were just putting the finishing strokes to a huge tank to hold twelve hundred barrels of oil. Numerous horses, sleighs, and curious visitors were grouped here and there. Still more men were engaged in filling barrels from the receiving tank, and driving off as fast as possible, their places being supplied by other scores.

Mounting a rough ladder, you get your first view of the oil which has been so rudely disturbed from its long slumber far down in the very bowels of the earth. You see nothing but a two-inch iron pipe, with a stream of fluid flowing out as large as a heavy hydrant stream, and looking like country-house molasses and of about the same consistency.

Every couple of minutes the gas—which can be plainly seen issuing from the tube like waves of heat—gives the stream a little spurt, and then it resumes its even and steady flow. Standing over the well, the oil can be plainly heard ascending the tubing. Near by stands the engine-house, with its trim polished and powerful engine from New York, looking as demure and innocent as if its ceaseless and powerful workings were not the cause of all the hubbub. No need of an engine now, except to sink another well, for "big well" is a flowing not a pumping one. It runs by nature's gas, not by man's steam. How long it will thus flow, who knows? not a man of the many thousands who have waited and will yet wait, but only the Omnipotent and Omnipresent Power who made the oil, and who has so mysteriously concealed it in the earth until man's need for it was greatest.

"The men about the well claimed for it a steady flow of two hundred and twenty-five barrels per day. Experienced oil men who visit it, assert that it flows strong two hundred."

How Oil is Struck.—In selecting a spot for a well, the artesian driller raises a derrick about one hundred and ten feet in height, bringing up a steam-engine of about six-horse power, and then, after driving down an iron pipe about six inches in diameter through the earth and gravel some fifty feet or so, to the first strata of rock, introduces a drill of about two and a half inches in diameter attached to a temper-screw, and thence to the "walking beam" and engine, with which he bores now at the rate of eight and ten feet a day into the solid slate and soapstone, say one hundred feet; he then comes to the first stratum of sandstone, which may be ten or twelve feet in thickness; and boring through this comes again to a slate and soapstone of a bluish cast; and working on, say for twenty-five feet or so, he reaches the second stratum of sandstone, but of which there comes rushing up, if the right vein is struck, inflammable gas, salt water, and petroleum. The bore of the well is enlarged by a "rimmer," and then an iron tube, in sections of about fourteen feet and closely screwed together, is inserted by sections and run down to the veins of oil; a flax-seed bag, which expands when wet, is fixed between the tubing and the walls of the well, in order to prevent the surface water from descending; a "plunger" or valved piston is introduced into the tube, and the sucker-rod being attached to the "walking beam" the conduit pipes and tank, which may hold sixty barrels, being in readiness, the engine moves, and the precious treasure gushes forth. This is what is called pumping a well. In the flowing wells—that is, such as send the oil out spontaneously—the drill must go down into the third strata of sandstone; but this, in some instances, is very deep. In a well on Watson's Flat the drill has reached the depth of one hundred feet, and yet the third bed of sandstone is not reached.

The Flowing Well.—There are two sorts of wells, those where the oil must be sought—dug for, and others where it presents itself at the surface of the ground.

"The pumping wells were discovered some three or four years ago, but soon afterwards very rich flowing wells were discovered, which produced oil in such abundance that it was impossible to provide receptacles to contain it, and therefore the price of oil at the wells was merely nominal, several barrels of oil being given for one empty barrel. This, of course, ruined the pumping wells; but as the uses of oil have multiplied, and but few flowing wells have been discovered, the price has risen, till now the pumping wells are again being put in operation. One advantage of the pumping wells lies in the fact that the oil obtained from them is much heavier than that from the flowing wells; being in some cases worth double the price per barrel. In the flowing wells the only product is gas and oil without water, and the gas is allowed to escape freely.

"The oil, as it comes from the well, is a dirty-looking greenish, viscid fluid, varying in thickness in the different wells; and at present in price from \$10 to \$20 per barrel."

Refining the Oil.—"All the oil as it comes from the wells is impure, and is known as crude oil. This must be refined before it is suitable for use. I will attempt a brief description of the extensive refinery at Corry, owned by parties in Boston. The first operation is distilling, in which the oil is placed in receivers over a coal fire, and the vapor carried off to a worm, where it is condensed and then drawn off. That which first comes off is the light oil, and is called naphtha. There is no dividing line between naphtha and oil, but when the operator thinks it is heavy enough he shuts off the naphtha and calls it oil. The oil thus obtained by distilling is further purified by a course of treatment that also to some extent deodorizes it. Lastly, it is carried to iron tanks in the barrelling room, where it is barreled and shipped.—*Abridged from the N. Y. Methodist.*

Correspondence.

For the Christian Messenger.

The consistent Church-member abroad.—The Western Association.

And are you my friend a member of the Church of God, having been begotten from the dead through the life and power of a risen Christ? Does your business require you to be much from home, and consequently away from the communion and fellowship of those with whom you became connected in the church? Well, have you reported yourself, to your brethren in your new field of action? That you should, is desirable on every account; as you would be less likely to leave your first love, and would also be adhering to the urgent recommendation of all our churches. It has occurred to me, that in addition to this course, you could greatly cheer and comfort your brethren at home, by sending them an occasional letter. Among some 40 letters, received during the past quarter, I feel that some of them are too good to be packed away. And presuming that an extract from one penned by a young brother abroad, would be read with interest and profit, will you please give it a place in the *Christian Messenger*.

My dear Pastor and Brethren,—

I have been thinking for some time past of penning a note to you, intimating my desire to remain a member of the church in Liverpool. I have frequent desires to meet with my brethren and sisters in Christ. Not that I do not enjoy the blessings of Christian fellowship here. We are peculiarly blessed, but it is sweet to meet with those for whom we feel the dearest ties of friendship in Christ's kingdom on earth.

I cannot be present in body, but frequently hold sweet communion with the church at home. Time only strengthens my love for God's people. I therefore love the church in Liverpool, better than at the time of casting in my lot with them, and desire to renew my covenant with God and his people. Though unworthy of the great privileges God bestows, I do not wish to be laid aside as unprofitable but desire to love and serve him the rest of my days, and through eternity.

There is much work to be done yet. I am backward, thinking there are so many others to go ahead; and not always feeling to love my duties, trials come upon me. A deep interest is felt here and some of our most promising young men have given themselves to God. To see and to hear them declaring the goodness and the mercy of God, and their determination to serve him the rest of their days, affords the greatest pleasure. We hope the number of God's ministers will be increased."

Further on this good young man urges upon us more fervent supplications and prayers to God, for the conversion of our sons and daughters, for the institutions of learning, and the speedy building up of the Redeemer's Kingdom on earth; closing with, "May heaven's blessings rest upon you, is the prayer of your weak brother." Surely communications like this, from absent members, to be read at the monthly covenant meetings tell favourably on all concerned. May all church members abroad follow the example of our brother.

THE WESTERN ASSOCIATION, your readers know, will shortly convene at Milton, which place is so contiguous to this town, as to lead us to presume that the influence of the Anniversary will be most sensibly felt among us. And will the ministers, delegates and Christian friends, who purpose to attend, come in the Spirit and love of Jesus; pleading with God to greatly revive his work among us? While the Baptist Churches of Queens are harmonious, and the people, in each and all the localities, very generally attend upon the gospel, as dispensed by the several pastors, the accessions to church-fellowship have been small. It should be kept in mind that the Association will commence at ten o'clock, A. M., instead at the more usual hour of two P. M. And let it be remembered that this early hour has been fixed upon that more time may be given to devotional exercises. A host are expected, from the large-heartedness of the Milton families, and I need not add that Liverpool is not a whit behind our beloved neighbours.

The Lord Jesus in mercy come up with his people, and make it a season of great spiritual profit.

E. N. HARRIS.

Liverpool, May 24th, 1865.

For the Christian Messenger.

OBITUARY NOTICES.

MATILDA DAVIS.

Died, on the 20th inst., in the 25th year of her age, of rapid consumption, Matilda, second surviving daughter of the Rev. J. Davis, of Charlotte Town, P. E. I. She had her mental gifts; especially a taste for poetical composition. Some of her metrical performances have appeared in the columns of the *Messenger*. She had made respectable proficiency too in the science of music. But she now sings the new song of God and the Lamb. In the year 1858 she was baptized, and united to the church in this city, and has maintained an unostentatious but consistent profession. She loved the means of grace, and would attend them at times when the condition both of the weather and her own health might well have excused her. She appeared among her Christian friends for the last time on earth at a weekly prayer-meeting; and referred to this meeting on her dying bed as one in which she had felt an unusual interest. She left it, as it afterwards appeared, to pass, ere long, to the great praise-meeting of the skies. Soon after the opening of the current year she began to suffer from the disease to which she has now fallen a victim. Her constitution struggled against the deadly attack made upon it, and hopes were long cherished that she might be restored to health. Aware, at length, that such hopes were but too fallacious, she quietly set herself to the business of dying; and "Thy will be done" became the habitual posture of her spirit. Her great concern was in the prospect of a change of worlds, that her religion should prove to be of the right kind; and be brought into action at the right time. "I suppose I needed this chastisement," she once said, at once acknowledging her evil deeds, and imploring her confidence in God as a chastening Father, and not an avenging Judge. She seemed, at times, almost afraid to think that one so unworthy as she should ever find acceptance at

"the throne of grace," and yet the manifold invitations of Scripture, addressed to sinners as such, emboldened her to draw near that she might live. Toplady's famous hymn on the "Rock of Ages" now became especially dear to heart. Only the day before her death she professed, that she found "self all gone; she looked for ALL in Christ." She was once somewhat disturbed, because she found it difficult to think of God as a Father, while it was delightful to approach to him through the Son. Her scruples on this point were effectually relieved by a reference to John xiv. 1-14. Then, again, she was afraid, lest she should think too much of herself, and too little of the spiritual welfare of others. She was reminded in reply to this suggestion, that her immediately pressing duty was, to look well to her own soul; and that, while she attended to this she might cheerfully commend herself to Christ, with all whom she loved, and all the interests that were precious in his sight. These hints show the jealous self scrutiny with which, eternity just before her, she looked in upon her own heart. She wanted to get very near to God, and felt that she could not get too near. She thought much, too, of some who had gone before her to heaven, and pleased herself with the thought of meeting them there as well as her Lord. And there she now is, rejoicing in her blessedness newly found, and beckoning to those to follow her whom she has left behind. Two expressions which fell from her lips as she approached her end may here be added. To some young friends, calling to bid her farewell, she said, "What an awful thing it would be to lie on a dying bed without Jesus!" To another friend she said, "I am sinking fast. What a blessed thing, there is light beyond!" Yes! "light" glorious light! in ineffable contrast with the twilight in which we here grope along. To that light may all who read this notice, especially the youthful acquaintances of the departed resident in these Lower Provinces, ultimately attain. Then will she not have lived nor died in vain. Yes, her early death may prove a greater blessing than would have been her prolonged life.

J. DAVIS.

Charlotte Town, P. E. I., May 21st.

[Christian Visitor will please copy.]

Dear Brother Selden,—

Death is rapidly thinning our ranks in this region. The three brethren of whom I now urnish brief Obituaries, living near each other, died within the space of five days—the two former within about three hours.

Yours in gospel bonds,

CHARLES TUPPER.

Tremont, Aylesford, May 23, 1865.

DEACON CALVIN BAKER.

Joined the Baptist Church in this place more than 36 years ago. He constantly retained his membership, and was a Deacon for many years. He was highly esteemed as a faithful and zealous servant of the Lord.

Deacon B. was a remarkably hospitable man. The ministers of Christ, and religious people in general, were ever readily received and kindly entertained by him and his pious companion. They both evidently took delight in waiting upon such persons. Indeed, the stranger and the needy ever found an asylum in their habitation.

These valued disciples were accustomed to aid each other in maintaining family worship, and also in keeping up prayer meetings. They enjoyed the peculiar satisfaction of seeing all their children, eight in number, profess conversion, and unite with the Church to which they belonged.

Toward the close of life bro. Baker seemed at times, through bodily infirmity, unlike his former self in some respects. With reference to religious exercises, however, he appeared quite at home. The genuineness of his piety was never questioned by the writer.

On Lord's day, May 14th, (inst.) in the firm assurance of everlasting life, he closed his mortal career, at the age of 71 years, leaving a widow and 7 children. "Blessed are the dead who die in the Lord."

(Christian Visitor please copy.)

DAVID SAUNDERS, JUNR.

Son of David and Elizabeth Saunders, of Tremont, Aylesford, was also removed by death on Lord's day, May 14th, in the 30th year of his age.

On the 29th day of August, 1851, while on a load of hay that was driven over rough ground, he was thrown off, and two hay-forks, which were on the load, entered his body. The writer, who had then recently commenced his labors in Aylesford, found him in great distress, both physical and mental. It appeared that this youth—16 at that time—had previously entertained a hope in Christ; but had fallen into a state of backsliding, and now felt greatly alarmed in the prospect of immediate death. After a season of deep disquietude, he again found consolation in the blessed Jesus.

To the astonishment of all acquainted with the circumstances, including his medical attendants, he partially recovered. Being of an industrious disposition, he betook himself to the use of the reedle, and did a great amount of very neat and ingenious work while lying on his bed. After a length of time he so far recovered as to sit up some in a chair, and subsequently to walk a little with crutches.

Under all his afflictions David evinced extraordinary patience. He was fond of religious reading, and gladly embraced every opportunity in his power to attend public worship. He became a special favorite with the family and the neighbors. Having lived in this enfeebled state