

anger. She instantly turned the other cheek, and said mildly, "There, Corie." The uplifted hand was dropped. When the child was asked who taught her to do that, she replied, that she heard her papa read it one morning out of the Bible at prayer time.

On another occasion she was in fault herself, and for a punishment was placed behind the sofa to remain there ten minutes. Her cries and tears were, in their bitterness, mistaken for passion, and she was told that if she did not command herself, and be quiet, she should remain there double the time. She still stretched out her little arms and sobbed out, "Forgive me, O forgive me." And when asked how she could expect to be forgiven while she cried and wanted to come out, she said that if she could only be forgiven, she would stay there all day.

It was never known when the work of divine grace was begun in Mary's heart. But in her thirteenth year she gave sweet evidence that the Holy Spirit was preparing her for the service and enjoyment of God, and even at that tender age the fruit of this hallowed influence appeared in her life; and she said that when she was but six years old she had felt the same power moving her to be anxious for the salvation of her soul. After recovery from a severe attack of fever, which brought her to the very borders of the grave, it was evident that divine things was more in her thoughts, and that she found delight in those duties which are irksome to the unrenewed heart. The souls of those with whom she was associated were the occasion of prayerful anxiety to her, at this tender age; and she sought in her own quiet yet winning way, to persuade her young companions to seek the Saviour. With her own brothers and sisters, and with her near friends who came to see her, she sought opportunities to converse on the subject of religion and to pray, and thus in the very morning of her own days, she was made the means of good to others. How many there are advanced in knowledge and in years, and bearing the Christian name, who live without concern for those who are living and dying in sin at their very doors, perhaps *within their doors!*

A sweet singer and fond of music, with a heart alive to the beauties of nature, and in the midst of the loveliest of nature's works, she was never at a loss for sources of pleasure; nothing giving her more enjoyment in childhood than a lonely walk on the banks of the lovely river Tweed; her soul luxuriating in the beauties of the world about her, and her voice rising in the sweet songs of its Maker's praise. At the age of twelve she wrote such verses as these, taken from the midst of a poem:

"Why should my soul so fondly cling
To joys that bless my pilgrimage?
The joys of heaven I ought to sing,
Its raptures all my love engage.

"Why should my spirit fear to die?
What though the river may be deep?
When past, I ne'er more shall sigh;
My eyes shall then forget to weep.

"O! for faith's bright and eagle eye,
To pierce beyond this vale of tears,
To regions blest above the sky,
To worlds unknown by lapse of years."

{(To be Continued)}

AGRICULTURE.

Advantage of Deep Cultivation.

It seems strange that there should be any indisposition on the part of farmers to admit the advantage of deep cultivation. A disinterested observer would deem it self-evident that the deeper the cultivation the more luxuriant would be the growth of the crop. Yet there is a dislike to deep ploughing in many districts, even where it cannot be accounted for by the quality of the subsoil. Some people carry this so far as to contend for a mere paring of the ground, as a preparation for various crops, in preference to ploughing. Such an opinion—obviously erroneous, we must think it—must have risen out of experience acquired on undrained land where there are not only difficulties in the way of deep cultivation, but circumstances which neutralise the advantages generally derived from it.

If the general experience of gardeners, allotment tenants, and those farmers who have cultivated their land deeply, be not considered conclusive as to the expediency of the practice, perhaps the strongest argument in its favour may be derived from the extraordinary development of the roots of plants which always takes place under favourable circumstances.

On well-cultivated turnip fields, where the manure has been well mixed with the soil, and where the land is dry, after the plants have got so far advanced as to cover the ground, not a handful of earth can be taken up which is not full of the fibres of their roots. We have ascertained the existence of these fibres at a depth of five feet from the surface, and at less depths the land is full of them—they can always be recognised by their taste, though their connection with the plant may not be traceable the whole way. The roots of the wheat plant have been traced to a depth of six feet by Mr. Badcock, of Watlington; and it is probable that those of our other grain crops extend equally far. These roots must certainly be considered as mouths through which the plant receives nourishment, and their occurrence at these depths, even were there no other evidence on the subject must be conclusive as to the existence of food for plants in the subsoils where they are found. Indeed, considering that all matters, before they can be absorbed by plants, must be dissolved in water, we cannot be surprised at finding much fertilising matter washed down to a greater depth than that at which it was originally deposited.

It thus becomes a question of some importance, how we are to induce plants to avail themselves of these deep-seated stores of food. Mr. M'Arthur, of Randalstown, in Ireland, who has lately published a pamphlet on this subject, endeavours to answer this question. He has published the results of a good many observations on the form and development of the roots of various agricultural plants, under various circumstances; and though the contents of his Pamphlet, as they are somewhat of a heterogeneous character, are not altogether fairly indicated by its title, yet there can be no doubt of the value of some of the author's observations, or of the justness of his conclusions.

The proper way to induce plants to extend their roots throughout the soil and subsoil—downwards as well as horizontally—certainly is to lay the land dry. This development of root is one of the consequences, and perhaps one of the most beneficial consequences, of thorough draining.

Mr. M'Arthur says, "the depths to which the roots of beans, flax, and clover grow, convey an important lesson on the necessity of draining and subsoiling to a greater depth than is generally practised or thought necessary. If draining be an indispensable operation on all cold wet lands, the soil should be dried, if possible, to the full depth the roots penetrate. By many, 20 inches is the stated depth for drains; others propose 2 feet; and a large number adopt the Deanston standard of 30 inches. I have observed in some isolated places drains made 14 or 15 inches deep, and the stones (being put in like flagged pipes) lie within 6 to 9 inches of the surface. Preposterous as the latter plan is, yet making drains even 2 feet is but a degree better; 30 inches may do, and does effect much good; but from a combination of many reasons and causes, I would not commend in any soil or situation where a fall can be obtained less than a depth of 3 feet for all minor drains, discharging ones being at least 6 inches deeper. I would prefer making them deeper even than this, but in no case less. At the ordinary depths of draining, the surface only is dried. The subsoil, or that portion containing the lower extremities of the roots, is allowed to retain nearly its original chilled and soured character, in which the roots cannot penetrate freely."

The consequences to the plant of meeting this cold wet subsoil are well illustrated by a case described by Mr. M'Arthur in another part of his book—"In recently reclaimed bog I have found tap or deep-rooted plants, on growing through the improved surface to the cold unbroken peat, in place of growing into it, turn and grow along between it and the surface, and being, when pulled, of the form of a J."

This satisfactorily proves the necessity of drainage to the usefulness of the subsoil as a store of vegetable food.—*Border Watch*

NEWS.

PENNY POSTAGE.—The financial accounts just published show a large increase in the revenue of the Post Office. The gross revenue for the year 1844 was 1,705,067*l.*, giving an increase of more than 84,000*l.* as compared with 1843; the net revenue was 719,957*l.*,