

ded; in which case the present crust will be much thinner than we have calculated it to be; and should this be found to be correct, the ingenious theory will become a subject of more importance, in a theological point of view, than we are at present disposed to consider it. Taking, then, as correct the present observed rate of increase, the temperature would be as follows:—

Water will boil at the depth of 2,430 yards.
Lead melts at the depth of 8,400 yards.
There is red heat at the depth of seven miles.
Gold melts at 21 miles.
Cast iron at 74 miles.
Soft iron at 97 miles.

And at the depth of 100 miles there is a temperature equal to the greatest artificial heat yet observed; a temperature capable of fusing platina, porcelain, and indeed every refractory substance we are acquainted with. These temperatures are calculated from Gytton Movern's corrected scale of Wedgewood's pyrometer, and if we adopt them, we find that the earth is fluid at the depth of 100 miles, and little more than the soil on which we tread is fit for the habitation of organised beings.—*Polytechnic Review*.

THINGS TO BE AIMED AT ON A FARM.—1. To exhibit a considerable ambition to be esteemed a good farmer, to contribute all that can be done to the stock of human happiness, and which may be undertaken with profit to himself and benefit to the community.

2. To make a compost of one part stable manure and two parts of earth, or other properly decomposed matter, instead of using long manure from the stable, in its green state.

3. To use manure spread and ploughed in, and not to apply it green in the hill—particularly with potatoes; as, by this practice, the crop suffers both in quantity and quality, especially in dry seasons.

4. Where a crop of grain is wanted from land to be laid down to grass, the better plan is to sow grass seed in September, after taking off the grain crop, and plowing in the stubble. Grass-seed should be sown thick; from two to three pecks of timothy and a bushel of red top should be allowed to the acre.

5. All barns should, if possible, be provided with cellars—part for roots and part for manure; and should be made warm and comfortable. This will operate, too, as a saving of food. Water should also be always at hand.

6. Improvements should be made on a farm on a good scale, and with liberal outlay, if practicable, instead of laying out surplus funds in buying more land.

7. There should be a systematic course of culture of the land; there should be a plentiful planting of fruit and ornamental trees, and all the small fruits should be in abundance.

8. Deep plowing, good in general, should be resorted to as a remedy for the washing of the land on hill-sides; it absorbs the water that falls upon the surface.

9. To plant unproductive and waste lands with trees—such as locusts, for posts, &c.

10. Not to be alarmed at scientific, or what are more commonly denoted "book farmers" and "gentlemen farmers," their experiments are often exceedingly valuable to the "stand still" farmers, who are often induced by them to move on, and to be improving in their practice.

11. To keep all tools in good order, and in their proper place when done with.

12. To take one good agricultural and horticultural paper, so as to keep up, to the best of their means, with their neighbours and the world at large.—*Western & Fur. Gard.*

GROWTH OF TREES.—We may convince ourselves by experiment, that the downward is after the upward growth of trees. If notches are cut on the stem of a tree, from the root to the setting on of the first branches, the new growth over the scars will be when the tree is ceasing to shoot. The upper notches will heal first, in the form of a horse-shoe, with the head downwards, that is, the growth will be on the upper part and the sides of the notches, without any growth from the lower parts of the notches. This fact also strongly corroborates the opinion that the new

growth in diameter is from the downward sap; for if it were a side deposit from the upward sap the lowest notches should heal first. I have found that if stems thus notched are inverted, the new growth comes only from the sides of the notches, and neither from the upper nor lower parts of them, which I am unable to account for. But the notches nearest the head are the first to heal, and those nearest the root last to heal.—*From the "Tree Lifter," by Colonel George Greenwood.*

HEDGES.—We have seen it frequently stated by the correspondents and editors of the New England agricultural papers, that the buckthorn is proved there to be the best plant for hedges. The seed on this plant can be procured in Boston. It also grows from cuttings. A correspondent in a late Massachusetts Ploughman, says:

"After some frequent and continued observations, I should select the buckthorn. My reasons for giving it the preference are the facts that it is easy of culture, of very rapid vegetation, having beautiful foliage, is compact and unyielding in its natural growth, and is more hardy than any other variety. It also possesses certain medicinal qualities, which render it unpalatable and nauseous to cattle, and deters them from browsing upon it. The usual age at which the plants are set is two years, and as the price now asked for them by the nurserymen is rather high, it would perhaps be the most economical plan for a farmer, who may wish to set a considerable length of hedge, and who has land and manure to spare, to procure seed and raise the plants for himself."—*Louisville Journal*.

RAILWAY INTELLIGENCE.—The extent of railways already constructed and in operation in the United Kingdom is 2,000 miles; the sum which has already been actually expended in their formation is no less than 79,000,000*l.* sterling; the projects now before Parliament will, if sanctioned, add nearly another 1,000 miles to the existing length of our railways, and were the cost of their construction to be equal to the rate of executing the existing lines, almost another 40,000,000*l.* sterling would be added to railway investments; but as the cost will not reach that rate, to add another 30,000,000*l.* sterling to railway stock will be probably a more truthful calculation. Thus in a few years the enormous sum of 100,000,000 of money will have been invested by the English capitalists in the construction of railways at home besides a very considerable sum which has been sent out of the country to assist in the formation of foreign railways.

BEANS AND TARES.—A suffolk farmer writes as follows, "A friend of mine tried the experiment, last year, of planting an acre of heavy land with Mazagan beans and spring tares, viz, 8 rows of beans and 7 ditto of tares, so as to have the outside rows of beans next the furrows; and the produce was 5 quarters and 6 bushels of tares. The straw if well harvested, is very valuable food for cattle."—*Tuunton Courier*.

DEFECT IN POTATOES.—At the Agricultural Meeting at the Old State Hall on Thursday evening, April 25th, the subject for discussion was the defect which occurred in potatoes last year. Remarks were elicited from various gentlemen, and the subject seemed very much to engage the attention of all present. Dr. Lee observed that the defect which was complained of here last year, had prevailed in Europe for several years, and he referred to the theory of some writers there, that the defect was occasioned by the degeneracy of varieties from age. The facts brought out at the meeting, did not seem to support the idea that the defect here, could properly be attributed to that cause, inasmuch as it did not appear to prevail most with the oldest varieties. The most hardy kinds, it seems, have been least effected, and the least hardy, as the Mercer, (or Chenango,) Foxite, &c., the most. It was nearly the unanimous opinion of those who spoke on the subject, that the unusual prevalence of the defect, (or as some called it "disease,") last year, was caused by the very warm and wet weather, following a severe and long continued drought. This idea was supported by many state-