

ground; but if the soil is shallow, or the subsoil of a barren nature, it is best to raise small ridges, as is done for turnips on the Northumberland plan, and bury the dung under them, by which means the roots have more room to strike downwards. As soon as the outer leaves begin to droop, they may be gathered and given to cattle, but a tuft should be left in the centre to carry on the vegetation, or else the roots will not increase. This practice of gathering the leaves is strongly recommended by some, and they assert that the root does not suffer in the least, although the leaves are reproduced; but here we would give this caution, founded on experience and observation. The drooping leaves, if not gathered, will decay and fall off; they have performed their office, and therefore to gather them before they wither is a real economy; but to strip off fresh and growing leaves must injure the plant, and the juices required to replace them are so much taken from the growth of the roots. When fodder is very scarce this may be a sacrifice worth making, but if the object is to reserve the roots for winter food, the leaves should remain on the plant as long as they look fresh and growing, until near the time of taking up the whole crop: the top may then be cut off an inch above the crown of the root, and will be excellent food for the cows and pigs.

The roots are generally taken up and stored for winter, some time before there is any danger of considerable frost; the top having been removed, and the tap root cut off, the mould which may adhere to the fibres is scraped off with the back of the knife. The roots are then either stacked in a barn or root-house, with alternate layers of straw, and the sides and top protected from the frost by straw placed all round, in which way they will keep well and fresh till spring: or they are placed in trenches (two feet deep and six feet wide, with a layer of straw at the bottom and against the sides; they are heaped up in these trenches to the height of three feet above the ground, forming a ridge at top, and then covered all over with straw, over which the earth taken out of the trench is spread, and made smooth, sloping like the roof of a house. A small trench is dug all round this heap, with a proper outlet to prevent any water from soaking in; the heaps are made of any length, according to the quantity of roots to be stored, and the two ends are secured with straw, and covered with earth like the sides. When it is required to take out the roots for use, an opening is made at the end, a sufficient quantity is taken out, and the end is secured again with straw and earth as before. When the roots have been put in dry, and some time has been allowed for a slight fermentation, and the steam produced has been allowed to escape before the heap was finally covered in, they will come out quite fresh and juicy till late in spring, but if the proper precautions are neglected, they will often rot or become musty, and then the cattle will not readily eat them. There are few crops so valuable for winter food for cattle as the beet; Swedish turnips, or ruta bage, exceed them in the quantity of nourishment, weight for weight, but on good light soils the produce of the beet per acre is much greater. On old pasture ground trenched up enormous crops of mangel wurzel have been raised. When the Regents Park was forming, a part which had been trenched was sown very thick with mangel wurzel seed, and such was the produce, that it was sold by auction, in lots, to the cow-keepers in the neighbourhood, at the rate of 80*l.* per acre.

(To be continued.)

Education.

The Art of Teaching.

Teaching is an art, and it must be learned as much as any other art. To give instruction in the best manner, to conduct and govern a school so as to make it answer its chief end, is a work of great difficulty and importance. Fact in teaching is in fact the art of so communicating knowledge, that the pupil shall understand subjects taught to be imparted; and associating what is thus received with other and previous attainments, he may be led at one and the same time "to cultivate his original faculties," and store his mind with useful knowledge. Says one, "he who would be an accomplished physician, must study principles, as well as *casu* cases." In like manner, he who would be a successful teacher, must look beyond systems to the principles on which they rest. The man who imagines himself a teacher, qualified

for the responsible duties of an instructor, merely because he has seen others teach in a particular way, is just as much an empiric, as a pretender in medicine, who occasionally walks through the wards of an hospital. The art of communicating knowledge has its principles—principles which lie deep in the philosophy of our nature.

Some of the best minds in our country and in Europe have for several years been employed in elucidating these principles, and in discovering the best methods of imparting instruction. The day for quack pedagogues is passed. A teacher to be successful in his high calling, must not only be thoroughly acquainted with all branches which he proposes to teach, teaching principle as well as facts, but he must possess extensive general information, have a good knowledge of human nature, possess good common sense and prudence, ease of communication, the ability of inspiring in his pupils an enthusiastic love of knowledge, the power of maintaining good government, self-control, an amiable disposition, attractive personal accomplishments, and a character eminent for purity and excellence.

A thoroughly accomplished teacher is as rarely to be met with, as an individual of the highest merit in any of the professions or other responsible callings of life. And no person can excel as an instructor, who does not make some special preparation for his work, and acquaint himself with the philosophy of teaching, and the art of conducting and governing a school.—*Journal of Education.*

A Word Fitly Spoken. How Good is it!

"Little things," make up the sum of human existence. In the natural world, objects, animate and inanimate, are composed of particles. Innumerable shining sands form the barrier against which old Ocean loves to fret. Crystal drops compose the vast extent of water which covers nearly three-fourths of our globe. The "blessed light," which cheers us day by day, may be separated into an infinite number of rays, each blending with its neighbour while faithfully performing its work. And the rich odors, so grateful to the senses, which float in our atmosphere, are actually tiny atoms, escaping from the dewy petals of the rose or lily, which blossoms at our feet. Meet emblems are those odors, floating round us all unseen, of the influence of words "fitly spoken." Words are among the "little things" which determine our influence for good or ill. Speak they of sympathy, of encouragement, or reproof, if so be they are spoken kindly, they are like "apples of gold, in pictures of silver." And no class has the privilege or opportunity of distributing so largely these small but precious coins, as the teacher. True, many are the words of counsel and instruction that fall from a parent's lip. But they are confined chiefly to those of his own household. The faithful pastor, as he kindly cares for all his flock, passes not by the lowliest, even without some "fitly spoken" word, which may, perchance, sink deeply in the youthful heart, there taking root, to bring forth fruit, long perhaps after he who planted the good seed shall have passed away. But his intercourse is limited, while the teacher meets daily with his band. And daily is his own character partially recreated in each one of his number, through the medium of his words. It is his to prune and fashion the slender sapling, which shall hereafter become the mighty oak. To his keeping is given the gold, while molten, and he may mould in what form he pleases. To him is entrusted the fertile soil of deathless intellect, and whether the seeds there scattered shall produce flowers that will cheer and bless with their life-giving fragrance, or blast and destroy with their poisonous breath, depends very much on him. Would you have influence with those who look to you for guidance and instruction? bear with you the law of kindness. Would you command their respect? let your words though they inflict pain for the time, drop kindly from your lips. Would you lead them all in her ways, whose paths are pleasantness and peace? labour constantly, earnestly, *kindly*. The child has his troubles, as well as the man, and they are as hard for him to bear. Therefore he needs words of sympathy. Let him have them,—let him have them too from his teacher. And let that teacher remember, he has done no vain thing, for he has made a human being happier, and perchance saved him the "loss of a day." For it is the wonderful virtue of sympathy to lessen grief, and the troubled spirit soothed, which will rouse again its energies, and toil on as before. The youthful heart, too, however hopeful, will