

of steps or tressels with steps on each side a man can quickly get over an orchard of young trees without putting the ladder against them at all. It is the shoots that rush upwards that need stopping in order to induce them to branch out into fruitful twigs and spurs. Some apples, that are noted for being nearly all flower buds and making scarcely any wood, can only be kept growing by just taking the tips off the shoots every year. If left unpruned they cease to make any young wood; and the same remark applies to some slow growing or tender apples, like the Ribston and Margil. These certainly make young growth more evenly over the entire surface of the tree when the shoots are tipped regularly every year. Young wood is needed to produce continuous crops of fine fruit. In all cases the centre should be kept open. A welltrained orchard tree should resemble an inverted umbrella, the ribs, representing the main shoots, which should be cleared of spray; the latter does not answer any useful purpose, but the outer branches should be left moderately thick. In fact, in trees that have plenty of room to extend all round, the outer branches require but little thinning. We clear the centre of the trees each winter, and cut out dead wood or weakly growing branches that are being smothered or covered by the stronger growth of younger wood. The erect shoots at the top of the tree are stopped, but even where that is not done a heavy crop brings them down to their desired position quite as effectually as any kind of training.

PRUNING DWARF TREES.—Where the outline of these is formed, all that is needed is to keep them in good fruitful condition by summer-pinching. This not only reduces the necessity for much winter pruning, but it exposes the fruit to increased sunlight, thus improving both appearance and flavour. In the case of dwarf trees it is impossible for fruit to reach even the finish of which our climate is capable if the bushes are crowded with a thicket of spurs and the whole of the young growth is left to shade the fruit, more especially in market gardens where tall standards are planted so thickly as to completely shut out the sun's rays from the dwarf or bush trees with which they are associated. If we are to keep our hold on the market, the trees must have more room, and the pruning of dwarf bushes should be done with the view of producing finer fruit than they have hitherto done. If at the winter pruning the spurs were well thinned out, fresh spurs will originate along the entire length of the main shoots. It is not advisable to pinch the shoots before their bases begin to get firm, or about the latter part of July, and then not closer than five or six leaves, as at the winter pruning they can be reduced to one or two buds. I find the secateur a useful implement for thinning overcrowded fruit spurs, and in the case of those that are old and long neglected, a small pruning-saw will be found best for removing them close to the stem, shaving off the rough edges with a sharp knife, so that the cuts may heal over readily.

PRUNING TRAINED GARDEN TREES.—Having got these into form, it will rest with the pruner to keep them in a fruitful state by the judicious use of the knife. During these last few years this has been greatly assisted by summer pinching, and as the trees grown in gardens now-a-days are mostly on the Paradise stock, there is not anything like the disposition to make such a quantity of superabundant wood, more especially on the upper parts of the trees, that there was in days gone by, when the crab or free stock did duty for all kinds of trained or untrained trees. Still, careful manipulation is required to keep trained trees in good condition as regards an equal distribution of vigour, more especially in the case of horizontally trained espaliers and cordons, and to a less extent in that of upright pyramids, the tendency of the upper branches being to monopolise more than their share of the sap. This must be remedied by persistent pinching of the upper-

most shoots, allowing those less favourably situated to carry all the leaf growth they can, in order to maintain a proper balance in all parts of the tree; doubtless, however, in time, all modes of training that militate against the well being of the tree will be superseded; in fact, they are so already. The old horizontal espalier is making way for the erect trained cordon.

J. G.

NOTES ON THE POULTRY BUSINESS.

EDS. COUNTRY GENTLEMAN.—If the various diseases which affect chickens could be overcome, they could be made profitable, and at the same time afford work for persons who are not able to labor in the fields, or for women who are not equal to housework. Children would not exercise care enough, but old or infirm people could derive a handsome income, with a small outlay. But, when after all one's trouble and labor the insidious diseases to which chickens are subject, destroy them one by one, until whole broods are gone, it is not only provoking but decidedly discouraging. For a number of years we have given up any attempt to raise chickens at Kirby Homestead on account of the prevalence of the gapes, which killed most of them. This year another attempt has been made to raise several hundred chickens, following the sensible advice of some one to put them upon ground where chickens had never been kept before. This precaution did not prevent the gapes from breaking out among them, and at least a dozen broods were affected in some case one or two chickens in a brood, and in others nearly all of them. Putting dry lime in their throats cured this trouble. With the small ones, the lime was blown into the windpipe from a quill, by holding the chicken's mouth wide open and placing the end of the quill just over the entrance to the windpipe. While gapes are still annoying, the disease is entirely curable.

When this trouble was overcome our expectations in the chicken line became great, and we were sanguine of complete success. Now comes the pip. We know of no remedy for this miserable disease. Only two or three comparatively large chickens have died with it, but one whole brood of smaller ones, one by one, have drooped and stood around for several days, to worry one, and were then found dead. The presence of vermin on a chicken will cause the same symptoms as pip, but there is a distinctive disease in chickens which I call "pip," for which I do not know any cure. It is similar to the pale disease in older fowls, when they appear drooping and dumpy and their combs and wattles turn pale, showing a want of circulation and vitality. It affects them sometimes for weeks before they die, and I never knew one to recover. Chickens with the pip have been fed black pepper and red pepper, and been fed early and late, but all of no avail. I am inclined to think that the only remedy for pip is in prevention more than anything else. I recollect that the brood which died, and another which is most affected with it, were both badly wetted and bedraggled with rain in their coops. None died at the time, and not for several weeks after did they show any symptoms of the pip; still I cannot account for these two broods being more affected than the others, unless by the above cause. Vermin will kill chickens, and here prevention can be used most advantageously. Powdered sulphur should be freely sprinkled in the nest when the eggs are put under the hen, and it would be an excellent precaution to sprinkle it in the feathers when the hen is put into the coop with her brood. Grease is a bad thing to use on feathered animals; it seems to make them sick and sticks their feathers together, so that the little ones get chilled.

To succeed with chickens there must be suitable accommodations. It will not do to confine them in a close coop for any length of time, nor will it answer to let them run in wet wea-