whole being well cooked and salted and given to them about blood warm. During the season of fattening, an ear or two of hard corn is every day given to each pig. This small quantity they will digest well, and of course there is no waste. Shelled corn soaked in water made as salt as the water of the ocean, for 48 hours, with a quart of wood ashes added to each bushel and given to them occasionally in small quantities, greatly promotes their health and growth. Their health and appetite is also greatly promoted by throwing a handful of charcoal once or twice a week into each of their pens. Their principal food should, however, be cooked thoroughly and nicely. From long practice and repeated experiments, I am convinced that two dollars worth of material well cooked, will make as much pork as three dollars worth of the same material given in a raw state. Pigs when first taken from the sow should be treated with great care, to prevent them from scouring and becoming stinted; when either of these happen it will require many days, and sometimes weeks, to put them again into a healthy growing condition. When first deprived of the maternal food, a little new or skimmed milk, boiled, and slightly salted, and given to them often and in small quantities, will prevent scouring and greatly promote their growth. If intended for killing at the age of 9 or 10 months they should be full-fed all the time and made as fat as possible. If on the other hand they are intended for killing at the age of 15 or 18 months, they should not be full fed, nor be made very fat for the first 10 or 12 months. To satisfy myself of the benefit of this course, I took six of my best pigs, eight weeks old, all of the same litter, and shut them in two pens, three in each. Three of these I fed very high, and kept them as fat all the time as they could be made.—The other three were fed sparingly upon coarse food, but kept in a healthy growing condition, till within four or five months of the time of killing, when they were fed high as the others. They were all slaughtered at the same time being then 16 months old. At the age of 9 months the full fed pigs were much the heaviest, but at the time of killing the pigs fed sparingly for the first 10 or 12 months weighed, upon an average, fifty pounds each more than the others.

On regular and systematic feeding, and clean and dry bedding, the success of raising and fattening swine very much depends. A faithful feeder also who has some skill and taste, and withal a little pride of vocation, is indispensable."

Extract of a letter from the late John Lowell, to Mr. Colman.

"I may say that I have fully and clearly ascertained, from a trial of twenty years, that young pigs of from 25 to 30 lbs. will give nearly double, in some remarkable cases three times, as many lbs. as shoats of six months weighing from 100 to 150. I have taken two pigs of 100 lbs each, age 6 months, and never was able between May and November to get them above 180, rarely above 170. I have taken three pigs of about 30 lbs each, and on the same food I gave to the two, they would weigh from 170 to 180 each in the same period:—nay, I have taken pigs of 200, and never could get them to weigh above three hundred in seven months. 3 pigs of 30 cwt. each, will give, ordinarily 510 lbs less, original weight 90—gain 420 lbs.—2 pigs of 100 weight each, will give, ordinarily 340 lbs less, original weight 200—gain 140 lbs. But the three pigs of 30 will not consume for the first 3 months half so much as the two of 100 each. There is nothing new or remarkable in these facts. It is the law of the whole animal creation. It is true of the calf and man. The child of 7 lbs quadruples its weight in 12 months: and the calf of 60 wt, if fine and well fed, will weigh 600 weight at the end of the year, and (if a female) will not double the last weight at any age. N. B.—The weight of pigs at purchase, is live weight, and at sale, dead or nett weight."

TURNIPS.

Turnips that are sowed very late, should be thinned so as to leave them a foot apart on an average, and a little dry ashes should be strewed over the leaves in the morning, when the dew is on them, as soon as they are two inches in length. The caterpillar often destroys turnips that are crowded thickly together, when those that are very thinly sowed, escape. The young caterpillars are at first hatched on the leaves, covered with a web, and are many of them destroyed by the ashes, which should be sowed for two or three weeks in succession. A slight dusting of lime that has been slacked for three or four weeks is more efficacious.

COMMON GRUB, OR CUT WORM.

The Robin, when permitted to do it, destroys a great number of these grubs, and also some of the Moths who are their parents We have seen a Robin constantly attending a man who was working in a garden, for the purpose of collecting grubs as they were brought to the surface; he became so familiar that he was frequently within ten feet of the man, who never permitted the bird or its nest to be disturbed, nor did he cease from his daily superintendance of the hoeing and weeding till the young birds left the nest. This bird appears to scent the grub when covered with earth, for he may frequently be seen to make a hole in the ground with his bill, in searching for them. Chickens are very fond of grubs which they appear to prefer to earth worms. They are easily taught to attend a person who is hoeing in a garden. If the hen is shut up in a Coop which does not confine the chickens, and the ground near the Coop is frequently hoed over, to bring worms to the surface for them, they soon learn to know the sound of the hoe, and, when half grown, will go a considerable distance to follow the person who is hoeing. Toads feed much upon grubs, they should be preserved as much as possible; they are disliked for their ugly lookss, but they do not intrnde themselves upon our sight, and there are few birds whose note is more welcome in the spring than the trill of the toad, the unfailing harbinger of mild pleasant weather, and, at a later season, a notice that rain is at hand.

The Robins when not disturbed, will build all round our fields, and protect them from vermin: they ought not to be killed in the spring, the only mischief they do is among the currants and cherries. The small blue-birds and gray-birds devour a multitude of grasshoppers and froghoppers, but never injure the crops. The night-hawk feeds its young with the large brown beetle which breeds the white grub with the yellow head, that injures the grass in old pastures, by consuming the roots. It is the interest of the farmer to protect the small birds and leave them undisturbed. The grey linnet is the only bird that has ever done much mischief here; they formerly came in great numbers and destroyed a great proportion of the oats, but for many past years they left visiting us.

For the Colonial Farmer.

ELEMENTS OF AGRICULTURAL CHEMISTRY AND GEOLOGY.

[Continued from No. 23]

III,—Substances which are the results of Vegetation and modes in which they are produced.

We have already seen that Carbon, Hydrogen, Oxygen and Nitrogen, are usually found in nature, not in the simple state, but in various compound forms, such as Carbonic Acid, water, &c. In like manner these four elements when they enter into the composition of vegetables, combine with each other in various ways,