into a grub. That eats its way into the central part of the fruit, and remains there eating three or four weeks, till ready to go into the ground. Then the fruit drops, and the grub crawls out of it and enters the earth. It burrows about three inches under the surface, lies about twenty-four days, and then comes up a winged bug. By this time, most of the fruits are too far advanced to be suitable places of deposit for the eggs of a second brood, though we sometimes find the grubs in peaches as late as 1st of September—The greater part of the second brood, as is now known to us, appears to be bred in the black knots on plum and cherry trees.

The destruction caused by this insect is, in most seasons incalculable. It often happens that it leaves us not a single plum, though our trees set full and promise abundance. Unless therefore we can protect our plum trees from this insect, we may as well abandon their cultivation. And indeed, if our apples are hereafter to be the prey of insects as they have been for a few years past, an apple tree will be of no more use or value than an elm. This evil has now increased upon us to such an extent, that we shall require all the resources of our ingenuity and industry to overcome it. It will be of little avail for a solitary individual, here and there to try to protect their fruits—as fast as he destroys an insect on his own trees, its place will be supplied from the trees of his neighbour for the bug is winged and flies with great ease. Nor will it be of much use to destroy the insects of a single or favourite tree, while surrounding trees are filled with the winged destroyers. To do the work of destruction effectually, every body should engage in it—and all at once.

The habits of the insect in its different stages of existence, will suggest to us various modes of attack or defence.

1st. I have remarked that the bug is exceedingly shy—disposed to keep away from us or out of our sight. Advantage has been taken of this timed nature, to set some valuable fruit trees in places where persons are frequently passing—as, near the door of a house, pig-pen or well. Some have fastened a cord to a tree, attaching one end of it to a pump handle, so as to jar the tree whenever water is drawn. Trees so situated are pretty well protected from the insect. But it is evident that the number, which we can guard in this way, is quite limited and the trees also must be of a small size. Apricot, plum and peach trees, that stand close to a building on the south or east side, are less apt to be attacked by the weevil than others farther removed. I am unable to assign the cause of this, unless it be that the greater warmth, in the vicinity of buildings, brings forward the fruit too early for the use of the insect—for the same reason that very early peas escape the pea bug.

2d. When a tree is suddenly jarred, the insects drop from it as if dead. A cloth, large enough to cover the ground as far as the limbs extend, will catch a great many insects if the tree is jarred over it. The bugs may be thus collected and thrown into the fire. The bugs should be shaken off into the cloth every morning and evening, from the time the fruit begins to set till it is grown to the size of a large pea.

3rd. The grubs will go into the ground to undergo their final transformation. It has been proposed to make the ground underneath the tree so hard, by paving or otherwise, as to prevent the insect from penetrating into it. When this is effectually done it is said to be a sure protection of the fruit. I once paved the ground under a nectarine with round stones, without any apparent benefit. There were spaces of course, between the stones, where the grub might have entered the earth; and this experiment may not be conclusive against paving if it were to be done more perfectly. Perhaps a close pavement of brick might be effectual. A coat of cement or bitumen, like that used for walks, would exclude the grubs from the earth entirely; but whether the trees would flourish, with such a tight covering over their roots, is questionable. To effect the same purpose (arresting the grubs on their way into the earth) it is proposed to pick up the fruit containing the insect as it falls, and scald it. If this is to be done, the picking up should be at least twice a day; for many of the grubs quit the fruit soon after it falls. We may be assisted very much in the destruction of the grubs, as they come down to the ground, by such animals as will eat the fruit. Geese have been found particularly helpful in this sort of work. Turkies would probably be useful in some degree; but the best animal help at our command, is doubtless the hog. To derive full benefit from his services all our trees liable to be infested by the plumb weevil, should be placed together in an orchard, so fenced as to admit of the hogs runing at large in it during the whole of the summer. If geese, turkeys, ducks and common fowls can run with the hogs, so much the better. Such a mode of planting out and managing our fruit orchards, *extensively*, *adopted*, would probably give us an abundance of good and fair fruit. It will be obvious, I presume, to every one, that we shall gain but little by making war upon these enemies this year, and leaving them at peace the next—the war must be continued from year to year, till the enemy is not to be found.

4th. As the weevil breeds in the black knots on plum and cherry trees, all those excrescencies should be cut off and burnt as soon as the swellings begin to appear. The wild as well as the cultivated cherry is subject to these knots, and should not therefore be overlooked. It is the more important to destroy these knots, because other noxious insects, besides the weevil, inhabit them—particularly the Peach worm (Ægeria) that commonly is found at the root of peach trees—and a small moth, rust brown and copper coloured, about three-twentieths of an inch in length, the name of which I have not ascertained. In cutting off and burning these depositories of noxious insects, we at the same time may save the trees on which they appear, and prevent, to some extent, the increase of the insects.

I have given in the first part of this communication a history of the Plum-weevil, as far as it is known. It will be seen that this history embraces but a small part (only about three months) of the insect's life. Several thousands of weevils may be bread upon a single apple tree—they will go into the ground in June, and before the end of July come out in the winged state. A few of these perhaps may breed the same season in the later fruits and the knots on plum trees—but what becomes of the greater part—what they feed on, if they feed at all—where they spend their time—where they find winter quarters—all is yet unknown to us. Here then is an interesting field of research. If we can obtain a thorough knowledge of the weevil's habits and history from the first of August to the 1st of May, we may discover some more effectual mode of destroying the insects than any hitherto employed.

Your friend,

NOYES DARLING.

NUTRITIVE QUALITIES OF CHARCOAL.

Though the importance of mixing charcoal with the food of animals, particularly that of swine, has been generally acknowledged, and its benefits extensively tested, still it has been supposed that it only acted as a corrective to the acid tendency of food, and facilitated fattening by improving the health of the animal. Some experiments are, however, on record, which would seem to show that charcoal acts a more important part in the matter than has been usually assigned to it.

In 1793, a family being driven from New-York by the fever, were absent six or eight weeks before it was deemed prudent to return. A number of fowls confined in a loft to the workshop of the house, were forgotten at the time of leaving, and it was known that there was nothing provided for their subsistence, it was expected on the return that they would be found starved to death. To the astonishment of all, the fowls were found alive and fat, though there was nothing upon which they could have fed, except a quantity of charcoal and shavings, water being supplied from the grindstone trough.

These facts coming to the knowledge of a gentleman in New-York, as we learn from the Recorder, he instituted the following experiment. He placed a turkey in a box or enclosure, four feet long, two feet wide, and three feet high, excluded light as much as could be done, and allowed a free circulation of air, and fed the turkey with soft brick, broken fine, poundek charcoal, and six grains of corn per day. The box was kept locked. At the end of a month, the turkey was killed in the presence of several gentlemen, was large and heavy, and on being opened was found filled with fat. Nothing, on disection, was found in the gizzard and entrails but charcoal and brick. Last winter the experiment was repeated, and with the same success.

Several years since, in fitting out one of the Liverpool traders at New-York, a pig on board was missing, and was supposed to have been lost. The cargo was taken on board, stowed, and the vessel sailed. It was now discovered that the pig was alive in the coal hole, but as he could not be got at readily, it was concluded to leave him to his fate. He remained in this retreat until the passage was made, when his pigship was found to be not only alive and well, but materially improved in condition, though there was nothing, coal excepted, he could have swallowed.

When it is remembered that wood, sugar and several other substances, some which are most nutritive, are compounded of nearly the same original elements, it would seem possible, by animal chemistry, to convert them to saving life; though all experiments with wood or charcoal failed. The German chemists have converted wood into very palatable bread, by roasting and pulverizing; but calcination, it has been supposed, would destroy whatever powers of nutrition wood might originally contain. The chemical action of vegetables seems to produce the least effect on coal, and not the least particle of it has ever been found in the structure of vegetables, though mixed with the earth and water in which plants were growing, in the form of the most impalable powder. Whether animal chemistry is able to do what vegetable organiztion cannot, remains to be seen; though if there is no mistake in the statements alluded to, it would seem probable that this intractable substance is, in some way, made subservient to the nutrition of animals.—*Genesee Farmer.*

HOW TO MAKE GOOD COFFEE.

The question is often asked, why it is, that good coffee cannot be produced in this country? The reason is simply this: coffee is spoiled in the burning, and sufficient care not is taken in preparing it for the table. To make coffee equal to the French is very simple, and very easy, and for the benefit of all good housewives, and all lovers of good coffee, we will state the manner in which it should be done. First, procure the best coffee possible. See that your cook does not *burn* it, but roast it to the colour of a golden brown, and never allow it to remain in its burnt or roasted state for more than three days, as after that time it will lose its strength. Secondly, in *lieu* of the ancient method of *boiling* your coffee for an hour or more over a hot fire, and then being obliged to settle it with such rarities as *fish-skins, egg-shells* and the like, procure a *biggen*, as it is termed and make a distillation or decoction by puting the coffee in the apartment in which the strainer is, and turning thereon *boiling hot water*. Take care that the nose of the coffee-pot has a stopper to prevent the steam from escaping, and cover the top of your *biggen* immediately after having turned the water upon the coffee; as it is a most important requisite to have the steam confined. Judgement is also to be used, as to the amount of coffee required, and also to the quantity of water used. The best coffee may be spoiled by too much water applied to it. The coffee should be made very strong; and, if strong enough, its colour will be quite black.—Lastly, having made your coffee of great strength, do not use *hot water* to dilute it, in lieu thereof, take boiling hot milk, and weaken the coffee to your taste. By following these directions you will have as fine a cup of coffee as can be made in any country.

The time required for making coffee in this manner, is but a few minutes, the coffee being made as fast as the liquid issues through the strainer.—*Daily Times.*

DAIRY SECRET.—Have ready two pans in boiling water, and on the milk's coming to the dairy, take the hot pans out of the water, put the milk into one of them, and cover it with the other.—This will occasion great augmentation in the thickness and quality of the cream.—*Ally Cul.*