

January, 1838, 104 were received to this church, and that 403 more were added on the first Sabbath in March. On the first Sabbath in July, 1705 were baptised and received to the communion and fellowship of the church. This was a great and solemn and glorious day. A scene never to be forgotten. I was alone with my family at the station at that time, my beloved associates, Messrs. L. and W., having gone to Oahu. These 1705 I baptised in one afternoon, and on the same occasion broke bread to about 2400 communicants. In selecting and examining that 1705 candidates I spent much time and care, attended with many prayers and tears. I met them all personally five or six times, besides preaching to them often collectively.

During tours which I made in Hilo and Puna in the months of July and August, I baptised and received to the fellowship of the church 452 individuals. These were chiefly the aged, the sick, and the infirm, who had for a considerable time given evidence of regeneration, but who were too feeble to come to the station. For the consolation of these and other aged and sick disciples, I administered the Lord's supper at several different places through which I passed. At our communion season on the first Sabbath of the present month (September,) 618 individuals were added to the church, making in all 3881 souls who have been received to this communion on profession of faith in the Lord Jesus, since the 1st of January, 1838. The whole number now in communion with the church is about 3500. About four hundred of these are children between five and fifteen years old.

Five hundred candidates now stand propounded for our next communion, and I am now spending about two days every week in the selection and examination of hopeful converts of whom there are yet multitudes not brought into the church. Truly Zion here is made to enlarge the place of her tent, and to spread forth her curtains.

### The Domestic Economist.

From the Genesee Farmer.

#### DISEASE OF THE PLUM AND CHERRY.

This disease is termed the excrescence, or blight, by some, and may well be known by the irregular, unsightly swellings that take place on the affected branches, destroying the vigour and healthiness of the tree, and, unless checked in time, multiplying to such an extent as to speedily cause the death of the tree. It was considered at first a mere exudation of sap or gum from the branches, and as many insects were found in these masses, the presence of these was attributed to the discharge from the tree, instead of the injury being charged to the insect itself.

The increase of the evil directed the attention of entomologists at last to the subject, and papers on the blight and its cause were given to the public by several gentlemen, among whom were Professor Peck, of Harvard, and Dr. Mitchell, of New York. These essays threw much light on the subject, and led to a more rational mode of prevention. According to Professor Peck, "The seat of this disease is in the bark. The sap is diverted from its regular course, and is absorbed entirely by the bark, which is very much increased in thickness, the cuticle bursts, the swelling becomes irregular, and is formed into black lumps, with a cracked, uneven, granular surface. The wood, besides being deprived of its nutriment, is very much compressed, and the branch above the tumour perishes."

In examining the character and habits of the insect, Professor P. selected a small branch, and slicing it in thin pieces, found the mass was filled with lar-

væ. A piece of the diseased branch was then placed in a glass vial, and it was soon found that these larvae had left the tumour, and were in a restless state at the bottom of the glass. A vessel with earth was procured, in which the larvae buried themselves, and in twenty-four days from their leaving the bark, the perfect insect was produced. They belong to the genus *Rhyssalus*, and are a variety of the fly that punctures the fruit of the plum and cherry. The investigations of Dr. Mitchell had a result very similar to those of Professor Peck; and though some little difference has existed with regard to the identity of the insect, no doubt can remain that to a cause of this kind we owe the disease in question.

As a necessary inference from the habits of this depredator, it was found that the most effectual remedy was the careful examination of the trees, and the immediate excision of all the branches that exhibited the least signs of infection. These were committed to the flames, and thus by the destruction of the larvae, the increase of the insects was prevented. It is evident that this will be done most effectually when the diseased branches are cut off as soon as possible after the injury is inflicted, since though some of the larvae may remain in the excrescence through the season, the greatest part, as they arrive at maturity, will fall to the earth, where they undergo their transformation, and emerge a perfect insect, ready to increase the evil, and perpetuate the race. The rapidity with which they cause the entire destruction of the tree attacked should cause farmers to be on their guard, and examine their trees frequently, to detect the earliest appearance of the enemy.

Thus far its depredations have, so far as we have observed, been confined to the plum, and the morello, or black cherry. Whether the other varieties of the cherry will escape remains to be seen. We have known within a year or two some fine plum gardens almost entirely ruined from this cause; the black and deformed branches too plainly indicating the nature and spread of the evil. We advise our farmers and fruit-growers, then, to examine their plum and cherry trees carefully this spring, and remove every diseased branch. If it does no other good, it will enable them to detect new attacks of the disease more readily, by removing all former appearances; and there is reason to hope that by a firm and general adoption of this course, these valuable fruits may be preserved from that extinction which has befallen them in many districts of the Atlantic states, or those parts of these states east of the mountains.

Since writing the preceding, we have examined an infected branch with the aid of a good glass, and find in the fungus no appearance of either eggs or larvae at this time. By carefully dividing the branch longitudinally, and slicing it off thin, the character of the mass, and the manner in which it destroys the part infected, can be clearly seen. In the parts latest attacked, the bark and surface of the wood only is affected; while in those places in which it made its first appearance, it has penetrated to the pith, or even embraced the whole branch. The substance of the fungus is evidently the elaborated juice, that in a healthy and undisturbed vegetable action would have been converted into fruit. So perfectly now does it resemble some kind of dried prunes, that a thin slice of one can scarcely be distinguished from the other. There is the same semi-transparency in both; though in the fungus minute portions of gum may be seen, that are not to be discovered in the fruit. We hope that farmers will be on the alert, and endeavour, by careful examination of these trees, to detect the approach of the enemy; and by multiplied observations arrive at correct conclusions respecting the cause of this disease, and the best methods of extirpating it.