

For the Farmer's Advocate

Benefit of Advertising.

I have much pleasure in informing you that the advertisement I inserted in your ably conducted paper has already brought me in several customers for my pumps, from parts of the Dominion that hitherto I have had no business connection whatever with. So thoroughly am I convinced of the benefit of advertising in your widely read paper, that I wish you to continue my advertisement till further orders.

J. D. CLEVELAND.

Bees.**THE APIARY.**

BY CHARLES DAUBARN.

In Europe the "Busy Bee" has long been made a source of great profit, and the hive with its teeming thousands of industrious inhabitants, has received the encouragement of crowned heads, as well as of many of the leading aristocracy. In some particular districts there are to-day more than a thousand hives to the square mile, without any apparent overstocking of the country. The wealth thus gathered by these active little laborers, is an actual gain to the country, and can be secured in no other way. The beautiful blossom has its tiny drops of honey, which is in reality the surplus of nature's gifts. It has received all its necessities require, and a drop to spare. It can make no use of this surplus, which if was gathered evaporates, and is wealth lost. Wealth is the surplus of labor,—that which is left after the necessities of the laborers have been satisfied. Here is the very beginning of that surplus, and yet in such a form that man unaided by insect toil, can never become its possessor. Every garden and lawn-tree of the forest and orchard, cultivated flowers and wayside blossom, is endowed with this wealth; whilst its possessor is actually benefited by its distribution. Most of these flowers are sexual, and require that the pollen of one flower shall fertilize its sister blossom. The bee performs this duty, all unwitting of nature's necessity and his own useful labors. He seeks honey—is bespattered with pollen and scattering it from petal to petal, enables the plant to perfect its seed. He is the willing servant of the tree. Orchards are every where more productive when the hive nestles under their protecting shade. The bee like every other living thing, is subject to laws, which, if left to himself he obeys and prospers, but if a bee historian could plead for his race, he would show a long chapter of ignorance and tyranny on the part of man his master. The old system of demanding "your honey and your life" was merciful compared with many of the modern improvements which first deprived the bee of those faculties which should enable him to store large supplies, and then take so large a proportion of his store, that he is left to perish with hunger during the long cold months of our northern winter. It is not my intention in this article to explain the nature and habits of the bee, but to name some of the late improvements

which rendered the apiary a source, both of pleasure and of profit.

In the days of the old-fashioned straw hives, and their successors the plain wood box, the prosperity of the hive could only be judged by external appearance. It was lifted and estimated by its weight or valued by the apparent number of its inhabitants. Now the weight is a very imperfect test, as old comb, and perhaps large quantities of bee-bread or pollen, would deceive all but the most experienced. At the same time the number of inhabitants is no guarantee of future prosperity, for during the season of honey—and especially if it is more than usually abundant—the bees so fill up the combs of their hive, that the queen has small space for her brood. As the life of a honey bee is but six or seven weeks in summer, a hive may thus be easily ruined, for as the old bees die off without leaving an equal number of successors their enemy the moth gets possession, the comb is soon infested by their nests, and the nation perishes, rich in honey but without soldiers to defend it. Other hives more prosperous attack their unfortunate brethren and the grand final is called "ill luck" by the owner. Sometimes they weather their storms, and die in winter, surrounded by their stores, but from lack of numbers to generate sufficient heat. Their queen may have died when they were not in a position to replace her, yet this greatest of misfortunes could not be ascertained, and so they perished, when all was seeming prosperity.

The first great advance was the introduction of the "Moveable Comb Hive." Frames so constructed, that the bee would attach his combs to them, and yet inserted in such a manner that they could be removed and examined as often as desired. It was now easy to ascertain if the queen was prolific, and had sufficient space for her maternal labors. The numbers, present and future, were thus seen, and the general prosperity of the hive more easily secured. But the actual amount of honey to be gathered as a profit to the beekeeper was very uncertain, varying from a pound or two, to fifty, and in some rare instances, to one hundred pounds per hive. It was discovered in Europe, that there were on an average but twenty-six days in the year, when bees made such abundant supplies of honey that they stored a surplus—that is, anything more than was needed for their sustenance through the year.

In the best honey districts in America, hives that have been so judiciously managed, that at this all important season they are full of working bees, will store ten pounds of honey in a single day, but an average would perhaps be about five pounds. Of course this can only be done when the comb is already prepared for its reception.

If comb must be made at this all important season, the progress is much slower. Wax is elaborated, not gathered as honey. Bees, when filled with honey, cluster in the hive, and apparently the heat of the cluster causes very thin, white flakes of wax to exude from the scales which cover their bodies. These flakes are bitten off and worked up into the combs, which they prepare with such wonderful accuracy of scientific proportions. The bees consume nearly twenty pounds of honey, in thus manufacturing one pound of comb. So just at this most important season, when "time is money," they are manufacturers when they should be in the harvest field. It is at this season that the honey boxes are put on the hive, to be filled

with their surplus for man's use. They always enter them reluctantly, generally waste a day or two before they will commence, and then must make their court before they gather the honey. Again when nearly full, and the box is almost ready to be taken away, they wait a short time before capping over the cells which are already filled, and so more of this precious time is lost. Many have been the efforts to prevent this delay, so as to save their time for profitable labors. Artificial comb has been attempted, but so far without success. Sometimes the hives are so constructed, that all the boxes they are capable of filling, can be placed on at one time, and in the most favorable positions; but this not only wastes much of the heat necessary in a hive, but it provides no remedy for the time lost in manufacturing comb. A recent discovery of German Aparians has now revolutionised the art of "making Bee keeping profitable," by the invention of a HONEY EMPTYING MACHINE.

It has long been found that Bees would store honey very much more rapidly in the body of their hive, than in any outside fixtures. So the frame is taken out of the Hive, and the Bees brushed back, or shaken off. The capping of the cells is removed, with a sharp thin knife, repeatedly dipped into hot water, and the frame is then placed in the machine, where it is made to revolve for a minute or two. It is now empty of all its honey, and is placed back in the hive, probably to be refilled on the morrow. As there is no necessity to wait for the capping of the cells, this process can be repeated two or three times a week, so that one gentleman in Medina, Ohio, took last season from a hive suitably prepared, more than two hundred pounds of strained honey; and this was done when the utmost surplus he or his neighbors could get from similar hives worked on the old system, was forty pounds of honey in the comb. The honey so taken is more delicious than any strained from hives whose bees have been suffocated with sulphur, or than the honey eaten with its comb; which last is only supposed eatable, because it looks so temptingly white. This machine honey retains the flavor and aroma of the flower or blossom from which it has been gathered, and is thus almost a new delicacy presented to man. This machine also enables us to add to the prosperity of the hive. By inserting the emptied comb in the centre of the hive, it is immediately filled with brood by the queen. We can thus guard against so much honey being stored in the body of the hive, as to check its prosperity; and by increasing the frames for brood, we secure thirty or forty thousand laborers to fill our frames, provided in the upper section for surplus honey.

This machine will not only induce our farmers to sow Alsike Clover, in abundance, but will lead them to ornament their houses and Apiaries, by planting the honey producing trees, such as the Basswood, the Linden, and Locust. It will be found as profitable to pasture bees as stock, though in reality both will flourish into double prosperity.

Here Mr. Editor, a word with your farming friends! Poor land produces very little honey! A field sown with buckwheat for several years, without manure, is at last unvisited by the bee; whilst an old barn-yard sown with the same crop will enable several swarms to fill their hives. You, friend Weld can preach from this text, its your editorial duty and privilege. By your request, I have thus called the attention of your readers to this useful discovery, which will ultimately