

are wrathful above measure, and when provoked infuse venom into their stings, and leave their hidden darts fixed in the veins, and lay down their lives in the wound.

"Yet, if you are afraid of a hard winter, you ought to spare their future nourishment, and have pity on their drooping spirits, and afflicted state. But who would hesitate to fumigate their hives with thyme, and cut away the empty wax? For often the lizard preys unseen upon the combs, and the vacant cells are stuffed with grubs that shun the light; the drone also, that sits exempt from duty at another's repast; or the fierce hornet has engaged them with unequal arms; or the moth's direful breed; or the spider, hateful to Minerva, has suspended her loose nets in their gates.

"The more they are exhausted, the more vigorous will they all labor to repair the ruins of their decayed race, to fill up the cells and weave their magazines of flowers. But seeing life has on bees too entailed our misfortunes, if their bodies shall languish with a sore disease, which you may know by undoubted signs; immediately the sick change color; horrid leanness deforms their countenance; then they carry the dead out of their houses, and lead the mournful funeral processions, or clinging together by the feet, hang about the entrance, and loiter all within their houses shut up, listless through famine, and benumbed with concentrated cold. Then a hoarse sound is heard and in drawing hums they buzz: as at times the south wind whispers through the woods, as the ruffled sea murmurs with the reflux waves; as rapid fire in the pent furnace roars. In this case now I would advise to burn gummy odors, and to put in honey through pipes of reed, kindly tempting and inviting the drooping insects to their known repast. It will be of service also to mix with it the juice of pounded galls and dried roses, or wine thickened over a strong fire, or raisins from the Pnythian vine, Cecropian thyme, and strong smelling centaury. There is also in the meadows a flower to which the husbandmen have given the name of Amellus; an herb easy to be found, for from one root it shoots a vast luxuriance of stalks, itself of golden hue, but on the leaves, which full thick are spread around, the purple of the dark violet sheds a gloss. [The plant here described is the Astar Atticus, or purple Italian star-wort.—ED.]

"But if the whole stock shall fail any one on a sudden, and he shall have no means to recover a new breed, it is time to unfold the memorable invention of the Arcadian master, and how the tainted gore of bullocks slain has often produced bees. I'll disclose the whole tradition, tracing it high from its first source. For when the happy nation of Pellæan Canopus inhabit on the banks of the Nile, floating the plains with his overflowing river, and sail around the fields in pointed gondolas; and where the river, that rolls down as far as from the swarthy Indians, presses on the borders of quivered Persia, and fertilizes verdant Egypt with black slimy sand, and pouring along divides itself into seven different mouths, [So in Virgil's time, but now only two mouths.—ED.] all the country grounds infallible relief on this art. First a space of ground of small dimensions, and contracted for this very purpose, is made choice of; this they strengthen with a narrow tile roof and confined walls; and add four windows of slanting light from the four winds. Then a bullock, just bending the horns in his forehead, two years old, is sought out; whilst he struggles exceedingly, they close up both his nostrils and the breath of his mouth, and having beaten him to death, his battered bowels burst within the hide that remains entire. When dead they leave him pent up, and lay under his sides fragments of boughs, thyme and fresh casia. This is done when first the zephyrs stir the waves, before the meadows blush with new colors, before the chattering swallow suspends her nest upon the rafters. Meanwhile the juices warmed in the tender veins ferment; and animals, wondrous to behold, first short of their feet, and in a little while buzzing with wings swarm together, and more and more fan the thin air, till they burst away like a shower poured down from summer clouds, or like an arrow from the whizzing string, what time the Parthians first usher in the fight.

"What god, ye muses, what god disclosed to us this mysterious art? Whence took this new experience of men its rise?"

The poem concludes with the charming episode of Aristæus recovering his bees, supposing the whole breed lost, wherein Virgil again refers to the opinion

of antiquity, that bees were produced from the "tainted gore of bullocks slain," which we have shown to be justly exploded by the bee-keepers of the present age. But this would take up too much of the valuable space in the JOURNAL, and we will therefore only further say, that Virgil was one of the best and wisest men of his time, and in such popular esteem that one hundred thousand Romans rose up when he came into the theatre, shewing him the same respect they did Cæsar himself. Just before his death, it is said, he wrote the inscription on his monument, which our author says does him the more honor, as it savors not the least of ostentation.

"I sung flocks, tillage, heroes. Mantua gave me life, Brundisium, death; Naples, a grave." J. S.

Modus Operandi of Curing Foul Brood.

PRACTICED BY D. A. JONES, OF BRANTFORD, ONT.

(Communicated.)

Having now sufficiently described the disease so that the merest novice should be able to detect it; also why the various operations should be performed, it will now be in order to describe the process that we usually adopt, which makes success certain every time. You must first have the necessary tools to operate with; a smoker and fasting box (or a hive with a screen to fit over top). With smoker in hand, go to the hive which you wish to operate on. If there is no brood in the hive, or if you do not care to save the brood, you then smoke and drum the bees until they all fill themselves with honey; as soon as they are filled, they must be shaken out into the box you intend them to occupy in fasting. A better way is to lift the hive off the stand and set the fasting box in its place; then when the bees are shaken down into this box those that take wing will come in more readily. Place the comb in an empty hive, then by turning the hive upside down, and striking it on the ground the bees will pass up into the fasting box; when all the bees are in, place a wire screen over the top, close the entrance, carry them to some dark repository (a cellar if possible), setting the hive down and turning it over on its side, by this means what was formerly the top of the box becomes the side, and the bees will cluster on the upper side of the box, thus allowing the air to pass through the screen. They may remain in this dark repository hanging in a cluster similar to a swarm, until they show signs of hunger, which is easily perceived. As the food in the abdomen is gradually consumed the cluster becomes smaller; the bodies of the bees also look smaller, a few bees, say a hundred or so, will fall to the bottom board, crawling about in a slow quiet manner, indicating their starving condition (if they are well filled with honey when placed in the fasting box, they are likely to require from four to six days fasting). They may be removed, but if removed before all the honey is consumed in their abdomens great difficulty is likely to arise. They must be watched very carefully, (say three times a day after the third day), because after the honey in their abdomens, is all consumed, they are able to die very quickly. Take them out, have your hive prepared where you wish them to remain; place in it some comb, then shake the bees down in front, and allow them to run in just the same as you would a swarm. If there is no food in the combs, they should be fed, as they will be too weak to gather honey, but after being fed they will go to work the same as a swarm, in a few days, if the flow is good. The combs should now be melted into wax, and the hive and frames boiled for ten minutes, to disinfect them. If there is any honey in the combs it may be extracted and boiled for ten minutes, when it will do for food; but a little water should be put into the honey before boiling (about one pound of water to five pounds of honey). Should there be brood in the combs, and you would prefer to save it, you should leave enough bees in the colony to take care of the brood; the queen should always be taken with the bees the first time. Then as soon as the brood hatches out of the combs, the bees must be shaken out into the fasting box and treated the same as the first lot. Should you have a number of colonies diseased with foul brood it is better to go over all the hives and put all the combs containing brood into hives by themselves; all others may be melted up at once. This will reduce the number of colonies

considerably, making some which may be fasted at once, and then along as the brood hatches out bees may be shaken from one or more colonies into the fasting box, and then put through the same process; as soon as the combs are free from brood they may be removed for treatment as prescribed. By continuing this process one or two hundred colonies could be purified and put to work in clean hives in a few weeks, and all by one person, the only loss occurring being the labor required and the time spent in fasting which would otherwise be employed in gathering honey. When it is done between honey-flows, there will be no loss from the latter, but the operator must be careful to see that the bees do not lack stores. It could also be done in the fall after the honey-flow is over; the bees must then be fed on sugar syrup, which is the best stores for winter. Destroying colonies afflicted with foul brood by fire or otherwise we consider a wanton destruction of property.

Horticultural.

FOR THE CANADIAN LIVE-STOCK JOURNAL.

A Woman's Help in Horticulture.

We are happy to know that there is in our progressive horticulture and in its many and varied operations and services many fine opportunities for the exercise of feminine skill and ability, so that none need be turned idly away. Here there is room for all who may apply, and the rewards are gratifying and pleasant. We would beg to specify as peculiarly fitted for the delicate and fine operations of feminine hands the following as amongst the many valued

SERVICES SUITABLE FOR WOMEN

to do. Light weeding or cleaning young plants, both vegetable and flower, when it can be done with a light hoe, will be found a not overly burdensome service for them to do during the early spring and summer months. Dressing, training, and staking and labelling plants on the borders and beds, either vegetable or flower, are duties peculiarly adapted to their hands, as this work readily calls forth their skill and intelligence in daily action. Again, in vineyard work trellissing, tying up, training and pruning the vines, and bringing out their best results in large, handsome bunches of beautiful fruit, are works peculiarly fitted and enjoyable to them during the summer months. There are thousands, even in this country, of bright, active and intelligent females, that if the example was once set them, as it is in older countries, would be delighted with this sort of work, and would be far happier and better for doing it in our gardens and vineyards, than elbowing each other for places either in the kitchen or in the factory shops in over-crowded cities. We believe also that the moral aspect of the question will commend itself to the better judgment of the reflective. But, again, it is well known the high estimate that is generally placed upon feminine service as fruit-pickers. Here they have the entire preference, and they have the happy faculty of making it very pleasant and profitable. A small fruit-grower told us a short time ago, in answer to his inquiries respecting his help in picking, that he employed mostly women and girls for his strawberries and raspberries; that he greatly preferred their services to that of boys or even men; that they were more constant and steady and reliable in their work, and that the results gave better satisfaction to him and his market, as the quality of the fruit in the boxes was more uniform and better selected, and less injury had been done to the plants. He found that their boxes, on account of the careful picking, had always a better appearance, and the baskets could be at once turned on to the market without any further examination. He found, too, that they would do more work in a day on account of their steady efforts, and as they were paid