

from the beeline taken at return time is too great to be risked. Even five miles is too far. One must know of the pastures of plant and tree blossoms within a couple of miles, or his bees may be lost suddenly, or their gathering powers lessened. Keep the busy bee busy, is an admonition to be hearkened to by all beemen. And then pure honey alone is what sells, and what it pays to market—pure honey in the sense of the fine article. Even golden honey is behind the times now. The comb which obtains the highest perfection must be fairly ambrosial in its translucence. A problem, too, is the matter of getting the best bees—bees that will do the most with the least output of care, and that will be able to accomplish everything towards making their keeper trustworthy and successful to the best degree. It is not difficult to understand how important care and study of the subject are in owning bees, when one regards some of these points.

Enterprise and honesty have brought as great success to the bee man as in any business, and to those who know anything about the production of honey, this means a great deal. With the adulterations of modern times have come adulterated and probably bogus honey, until one is sensible that buying honey may be a very foolish thing, since he gets nothing but sugar, water and gum arabic for his hard-earned money. And the idea of hardy wage-workers buying honey is not so queer as it seems, for there has been a time when the pure sweet was obtainable by ordinary people. Perhaps even now some poor man would purchase for the sake of titivating his old sense of taste, if only he could be certain that he was eating what he paid for. In Rhode Island a number of ambitious bee men have sprung up and a few years ago, to protect themselves and the markets from adulterated honey, united into a society. It is largely due to this organization's industry in the State that the reputable retailer now has a pure article for his customers. Only a few years since the latter was obliged to sell what was bought by him as pure honey, and if he learned that he had been deceived he could not depend upon getting a pure article from another dealer. Two or three prominent apiaries have been written of in the *JOURNAL* of late years.

Perhaps Mr. Samuel Cushman, of Pawtucket has put as much study into keeping bees for dollars and cents as any one, and assuredly he has achieved a high position as a honey raiser. He has an apiary in Pawtucket at the corner of Middle and Clay streets, and others in Burrillville, and Uxbridge, Mass., comprising about sixty hives. He does not sell bees, hives or

supplies; only honey, and this in the comb almost entirely. Mr. Cushman is modern in all his methods. He is a young man and full of ambition. He has read into the theories of his line of business, and accompanied earnest book study with diligent and industrious observation of the bee as it lives and works in its commonest conditions. He is not, to express a thought another way, one of those beings upon whose person the insects lovingly swarm as if they had discovered one they must obey out of instinct. On the contrary, they sting him once in a while, and he smokes them out whenever he wants to get at any honey. He keeps bees for profit, and tries in a hundred ways to make his care for them the most scientifically economical that is possible. And they appear to like it. He has Italian, Syrian, Holy Land, Carniolan and native black bees. A strong colony is estimated to contain from 40,000 to 60,000 workers. Mr. Cushman has arrived at the conclusion that certain crosses of the races are the best honey-gatherers and comb-builders, and his best colonies are thus made up. The Italian, Syrian, Holy Land and Cyprian bee is yellow. The Carniolan is from Germany, and looks about the same as our common black. Certain very desirable qualities are claimed for these by those who have tested them. At present Mr. Cushman is devoting his bees to the work of building up strong colonies, to enable the hives to withstand the winter. In view of the fact that buying and feeding sugar looks suspicious at any time, even when honestly done, most bee-keepers advise and follow the plan of feeding nothing but pure honey at such times as they may need to rear bees, or for winter stores, and so help keep their product above suspicion. Cheap foreign honey can be fed and stored in boxes, but most would prefer to buy it at cheap rates in the original barrel or can or at least know what they are buying. For a week or two in August there is often an entire honey dearth when bees greedily appropriate any sweet molasses from grocers' hogsheads sugar syrups, candy in the shops, etc. This has been urged against honey from town apiaries, but the modern bee-keeper will not have boxes on the hive during this season, and sweets from such a source are not sold in surplus, but furnish food for the young bees. When box honey is removed from the hive the bees are often left with little, and but for feeding would die in winter. At such times the practice has been to feed syrup made of granulated sugar, sufficient to last them through the winter. In order to control his own honey production as far as possible, Mr. Cushman has devoted himself to his business in the broadest sense of the word. He