tirely certain imp ent in the others. the ant.

July, 1912

The bees and activities by instir by reason.

Here you see he three kinds of be other. Beneath th No one, not even could tell by looki weighing it or mea ing it, whether it man male or a might guess, becaus brain is slightly man's and averag slight measuremen are not, however. proven, and so, wh tist might say he t brain or a woman' be sure which it re

On the other h between the brains of bees is apparent

It would seem, working of instinc highest power, diffe are needed. But i the higher faculty kind of brain is nee only perhaps highl reason is volition. three kinds of ante oped but rigid ma only produce just t for which they are like a stocking mach only produce a cert ings, but not women of man, on the other of great flexibility, anything. A mal shouldn't vote becau ly shows it is not m ties carried on by th ing bees who do hav good of the commun

But, on the other

the results of their toil may be made very profitable to the owner. He may either use the honey at home or sell it. There is an increasing number of bee-keepers who devote their whole time to the production of honey. It is estimated that the average production from a single hive is 25 to 30 lbs. of honey in the comb or 40 to 50 lbs. of extracted horey. If sold at retail prices the honey in the comb will bring 15 to 25 cents per pound and extracted honey from 10 to 20 cents per pound. The price varies acco dirg to the class of honey and the market. wholesale prices are less, 6 to 10 cents being paid for extracted honey and 10 to 15 cents per pound for comb honey. From these returns the working expenses must be deducted. Such expenses are entailed by the provision of wax foundation, sections, etc. Many farmers may not know that a steer costing about five times as much as a hive of bees, after it has been fed and cared for during the whole of the winter, will not realize much more than the produce of a hive of bees in a single season, and that bee-keeping when properly carried on may be as profitable as the feeding of steers. It must not be imagined that bee-keeping requires very little attention. While it is true that where a few hives are kept to provide honey for the household, or as cross-fertilizing agents in the orchard, comparatively little attention is required, it is a mistake to imagine that large returns will reward the expenditure of little time and trouble. The successful bee-keepers are those who give much thought time and labour to their bees. Where they are kept on a large scale this is necessary; there are good years but there are also years when, through drought or other causes, the honey crop is a failure and it is only the careful bee-keeper who is able to make the best of such poor years.

In Canada the most important problems confronting the bee-keeper are the control and prevention of bee diseases and the swarming and wintering of the bees.

All these difficulties, however, can be overcome. Mr. Morley Pettit, Provi cial Apiarist, of the Ontario Agricultural College informs me that an increasing number of men and women in Ontario are making good incomes from bee-keeping alone. These incomes range from \$500 to \$3,500 per annum.

A large outlay of money is not required to begin bee-keeping. It is a mistake to start on a large scale with a large number of hives. Begin with one or two hives and increase the number annually as experience is gained, otherwise financial loss may occur and discouragement surely follow.

Wherever it is possible, the prospective apiarist should make the acquaintance of an experienced bee-keeper. This does not mean one who still employs antiquated methods such as keeping the bees in boxes or frameless hives, etc., but a bee-keeper who adopts the methods best suited to the production of honey and the welfare of the bees. Experience is the chief guide and, although much may be learned from books, the real knowledge is gained only by finding things out for oneself.

## WHY A MALE BEE COULDN'T VOTE BUT A HUMAN FEMALE SHOULD.

By Prof. Gustav Fischer (Of Jena University, Germany)

That the male bee should under no circumstances have a vote in a bee community has been proven by recent laboratory experimentation upon the brains of the three types of bees—the female, the male and the neutral, or worker. Both bees and ants have recognized this fact by depriving the male of any but a biological part in their activities.

The brain of the male bee is a trifle larger than that of the female, but it is immensely less developed and lacks en-