

in the next two months, and have the satisfaction of knowing that I get all the eggs laid, instead of finding the nests wet and sticky and often minus all but a few eggs that happened to be laid with good shells. So I think, if young hens are kept busy working for their food, and other things needful supplied them, there will be no trouble with egg-eating. C. L. Muskoka, Ont.

### Re Egg-eating.

Editor "The Farmer's Advocate":

In regard to L. W., re egg-eating, if he will take knife or scissors and cut the beak off even with lower part, it will overcome the difficulty in hens. I have tried this, and find it works admirably. I was troubled very badly with egg-eaters one spring and had to treat the whole flock in this way, and found it a perfect success. The eggs were all covered with blood the same day, where the hens had tried to eat them afterwards, as they were very reluctant to give up the habit. ORTON VANSICKLE.

Wentworth Co., Ont.

### Cayenne and Vinegar for Egg-eaters.

Editor "The Farmer's Advocate":

I read an article in your paper recently about hens eating eggs. We were also troubled a short time this winter with the hens eating their eggs. We were getting from twenty to twenty-six eggs a day, when all at once they came down to five and six a day, and we just had to watch to get them. Almost every time anyone came to the barn, he could see a hen running with a piece of egg in her mouth, and the rest running after her to get it. When we would go in the henhouse, there would be hens picking at the eggs to break them.

Well, I cured them in a very short time, and I am going to tell you how, and hope it will benefit anyone who reads it who may have egg-eating hens.

The first chance I had I sent for Cayenne pepper, and then I mixed pepper with vinegar, and filled empty egg-shells full of the mixture, and laid them in the stable on the floor and in the nests. They went at them as soon as we laid them down, and ate them all up, so I filled some more right away. Some ate at them and walked away, but others came and ate them up. Next day I put out three or four more, and I fed them about ten eggs, then we began to get lots of eggs again. The hens were satisfied, and so we ate the eggs after that.

Thanking you for the many useful hints which I have already received through your paper.

MRS. JOHN SCHNAERING.

Waterloo Co., Ont.

### Hen Mothers for Incubator Chicks.

Many who use incubators to some extent get along without brooders. They endeavor in one way or another to get the chicks mothered by hens. There is no doubt that, raised in this way, scouring over a wide range with their foster mothers, they develop into more vigorous birds than when reared around brooders. This trick of getting hens to accept chicks they did not hatch is accomplished in various ways.

James Winslow, of Middlesex Co., is something of a poultry expert, and his plan is to give some sitting hens a couple of eggs apiece out of the incubator a day or two before the hatch is expected. The chicks under the hens hatch, of course, at the same time as those in the incubator, and as soon as the majority have come out, each hen is given, after dark, as many extra chickens as desired, and next morning she is delighted to see what a big family she has succeeded in bringing out of two eggs, and gladly mothers the whole lot. So says Mr. Winslow, who is a trustworthy man.

Another farmer of the same county makes a practice of setting several hens at the same date as the incubator is started, and hatching theirs about the same date as the incubator does, the old hens suddenly find their flock doubled some fine morning. This man (or, rather, woman, for she it is who looks after the chickens) reports some difficulty at times in getting hens to accept strange chickens. They peck at them occasionally.

Jack Miner, of Essex County, the wild-geese man, has a way of his own of teaching a hen, who pecks at stranger chickens given her, better manners. He puts a bonnet on her (see illustration) made of a piece of thin cotton, with a hole for her beak, and the whole tightened behind her ears with a draw-string. The cloth is open enough so that the hen can see where food is, but she cannot distinguish between one chicken and another. At the end of a week, or less, the food may be removed, and then hen will be pleased with the whole brood. Mr. Miner says that, by right, the cloth should be of the same color as the hen, so as not to scare the chicks, but their fright does not last long. He uses this plan, at

so, for reconciling a hen to the look of the young pheasants which she has hatched out, and of which he raises numbers in this way.



Jack Miner's Way of Educating a Hen to Accept Strange Chickens.

## APIARY.

### Successful Short Course in Bee-keeping.

The first short course in apiculture was held at the Ontario Agricultural College this month, May 1st to 6th. Forty-three bee enthusiasts were in attendance, including eight regular apiculture students of Macdonald Hall, and six other bodies from different parts of Ontario. Nine of the sixteen Provincial apiary instructors were present, also Dr. C. Gordon Hewitt, Ph. D., Dominion Entomologist, and his Assistant Apiarist, Mr. Beaulne. The programme consisted of forenoons devoted to lectures, the afternoons to demonstrations and practice, while the three evening lectures were of a more popular nature, and copiously illustrated with lantern views. The lecture work was divided largely between Morley Pettit, Provincial Apiarist, and Dr. E. F. Phillips, Ph. D., in charge of apiculture for the United States. Mr. Pettit handled what might be styled the more practical problems of apiculture, while Dr. Phillips discussed the question of general behaviour, anatomy, and diseases of bees. Many expressions of appreciation were heard from the class as they dispersed to their respective homes, and much credit is due the energetic Provincial Apiarist, who has already, since his appointment, in this and many other ways, done much to forward the science and art of beekeeping.

### Food of Bees.

By Morley Pettit, Provincial Apiarist, O. A. C., Guelph.

The food of bees consists of honey and other sweets, pollen, water, and a little salt.

Their principal food is the nectar of blossoms. This they gather and convert into honey, storing it away in their combs. The quantity of nectar secreted by blossoms varies according to the time of day and the condition of the atmosphere. Especially when the blossom is ready for fertilization is the nectar most abundant. Bees love sweets of any kind, but they visit blossoms in preference to all other sources. In fact, they will pass by any quantity of honey exposed in the apiary, if there is only nectar to be had from blossoms direct. But as soon as that source fails, they greedily seize and carry home everything in sight, in the nature of honey, syrup, and even juices of decaying fruit.

Pollen and water are used principally in the preparation of food for the larva. They are used in large quantities, and are especially valuable in the breeding operations of early spring. When pollen cannot be found, the workers will gather and use meal made of peas or other grains as substitutes. This, as well as a plentiful supply of clean water, should be provided in a sheltered place in or near the apiary during the spring months. In fact, there must be plenty of water provided all summer. Apiarists have many complaints from neighbors about bees around their water troughs—complaints which might have been avoided had water been provided in the apiary before the bees got the habit of going away from home for it. A small quantity of salt should be added to the water.

### Handling Bees.

By Morley Pettit, Provincial Apiarist, O. A. C., Guelph.

If the bee had not such a formidable weapon both of offence and defence, many people who are now afraid of them might be much better friends with bees. As the present system of management takes the crudest possible liberties with this insect, it is important to show how necessary operations may be performed without serious risk.

It is possible to handle bees in a limited way without tools or protection. Most successful apiarists find that three things are indispensable: First, a good smoker, one that will hold over in readiness a volume of smoke, not to be used cruelly, but to control the bees of a colony under all circumstances. The majority of smokers now in use should have been in the museum years ago. Second, a good veil, held down from the face by the rim of a hat, and drawn close around the shoulders and chest, so no bee can get near the face. The material must be black, light in weight, without dots or figures to interfere with the sight. Third, a hive tool. Commercial hive tools are good, or a screwdriver and wall-scraper used by paper hangers will answer.

To handle bees successfully, without many stings, there are certain principles in the habits of bees which one must understand:

First, a honeybee, when heavily laden with honey, never volunteers an attack, but acts solely on the defensive. When swarming, bees issue from their hives in the most peaceful mood imaginable, and, unless bossed, allow themselves to be handled with the greatest familiarity. The reason for this is that they always fill themselves with honey from their combs before starting out to swarm. Bees, when frightened, usually begin to fill themselves with honey from their combs. Bees can be handled at all times, but are the quietest in the middle of the day. At such a time, the old bees, which are the crossiest in the colony, are out in the field. In cold, cloudy or stormy weather they are more irritable, especially if there is a scarcity of honey, as the lurking robbers excite the bees. Old bees that come home loaded are not cross, while those going out are usually angry.

During a plentiful honey flow, when the hives are crowded for room, the bees are nearly all full of honey, and the colonies can then be handled with very little smoke.

In opening a hive, care should be taken to keep control of the bees from the start. A little smoke should be blown under the cover as it is being raised, and enough more smoke driven down between the combs to keep control of the bees. Experience will show how much smoke is necessary. This varies considerably with the weather, and the amount of honey coming in. Let all your motions about the hives be gentle. Never crush or injure the bees. Acquaint yourself fully with the principles of management, and you will find that you have little more reason to dread the sting of the bee than the horns of a favorite cow or the heels of your faithful horse. I feel like emphasizing again the importance of having plenty of smoke available in the smoker, and then using it judiciously. There is really no harm that can be done to a colony by smoke, except when robbers are about, when it is not wise to smoke the guards away from the entrance, and then, also, too much smoke to a colony already subdued will drive them from their combs. Too much smoke will taint the honey.

It cannot be too deeply impressed upon the beginner that nothing irritates bees more than breathing upon them or jarring their combs. Every motion should be deliberate, and no attempt whatever made to strike at them. If a single bee is struck at, others will avenge the insult. Another point to be noted is that a bee at a distance from its hive never volunteers an attack. For instance, bees getting water at a water-trough will very seldom sting any persons or animals unless they are caught or pinched.

### REMEDIES FOR BEE STINGS.

The first thing to be done after being stung is to scrape the sting out of the wound as quickly as possible. When torn from the bee, the poison bag and all of the muscles which control the sting accompany it. These muscles continue working, forcing the sting farther into the wound, and pumping in the poison, which causes the pain and swelling. Anyone who understands this will see the necessity of getting the sting out at once. In doing this, the sting should not be squeezed between thumb and finger, but should be scraped off with the finger nail, or brushed off against the clothing. Squeezing the sting would force the remainder of the poison into the wound before the sting could be removed. After the sting has been removed, the utmost care should be taken not to irritate the wound by the slightest rubbing. Any irritation will cause more swelling. Probably the best remedy is to apply cold water or mud. In very serious cases, ammonia or soda will give some relief. The fact is that beekeepers soon become so immune to stings that there is no swelling, and the pain is of very short duration.