

The Apiary.

The Sexes of the Bee.

To some it may seem out of place at the present day to occupy space in attempting to point out the different sexes of the bee; but I find in my conversations with many old bee-keepers, that it is still a subject of doubt with them whether it is the drone, queen, or working bee, which lays the eggs.

I intend then, in this paper, to point out the economy of the hive. Schirachs, the German naturalist, was the first to ascertain that there was no difference between common worker eggs and those laid for the especial production of queen bees; and that any egg laid in a worker's cell was capable of being converted into a queen, if the bees had access to it not more than three or four days after its having been laid; and that, in fact, every working bee is an undeveloped queen. This is now well known among all beekeepers who have paid any attention to the subject, and has been proved in various ways, that of artificial swarming being one of them. This is now adopted by many beekeepers, and the method of performing which I will detail in another article.

I will state a case that occurred in my own apiary last year. I had a queen in 1863 which could lay only one egg from being bred late in the year, and being unsuccessful in her wedding flights. I kept her still among her subjects all the winter to see if she would continue doing laying in the spring, and found that she did. I removed her on the 2nd of May, and gave the subjects a bar frame of eggs taken from a Ligurian queen hive. However, from some cause, they were not successful in bringing any queens to maturity, although they began seven queen cells, and then reduced the number to three; but they were all abortive, a circumstance which seldom happens.

I then took out on the point of my knife a new laid egg from a cell in the same Ligurian hive, taking care to remove the piece of the cell which had the egg attached to it, and placed it in one of the queen's cells which had proved a failure. I watched it with great attention to see the result, and was rewarded by seeing the young princess eat herself out of the cell on the 25th of June, last year. She came off with a fine top swarm on the 11th of June this year. In this case there could be no doubt but that the queen was raised from the egg that I put in, as I took care that there was no other than worker eggs, all sealed up, in the hive before I introduced the egg into the queen's cell. It takes about 16 days to rear a queen, and 21 days for workers; and a young queen coming off with a second or third swarm will be laying eggs in six days after if the weather is fine.

I had a third swarm from a Ligurian on the 12th of June this year, and examining her on the 19th, I found that she had laid many hundreds of eggs; so she had been successful in finding a mate her first flight after swarming.

The drones are the males, and are laid by the queen in cells larger than the worker bees. They are reared in about 16 days. It has been a matter of much speculation why it is that there are so many drones in hives, while they do nothing but eat. Some writers, the "Times Bee-master," Dr. Cumming, among the number, hold the opinion that the drones are for keeping up the heat in the interior of the hive, when there are plenty of worker bees in the cells. If they were necessary for that purpose, we would naturally be led to expect them to be seen at an early period of the year, when heat is really necessary, as in the cold months of January, February, March and April; but it is not till the latter end of April or the beginning of May that any drone eggs are laid; and, besides, worker brood and the workers themselves are as capable of rendering heat as the drones, and are more required at that time, when all the energy of the hive is in operation; so that the "Times' Bee-master" has no ground for his opinion, when we know that the young princess, in order to secure a husband, generally comes out of the hive from one to two o'clock, and celebrates the happy event in the air, remaining only a few minutes out. Thus we can see the wise provision made by having a great number of drones (although only one is required) that there may be as little chance as possible either of the queen remaining long out, or having to go far for a mate.

And that it is a great event in the economy of the hive is evident to any one who watches the commotion that takes place among the bees, and with what joy they receive the queen when she returns from

the wedding ceremony, knowing well that, had any accident occurred, they were powerless to rectify it, if it were a second or a third swarm. The queen seldom if ever goes out of the hive after the event, unless to swarm. The young queen continues to lay workers' eggs till September, and commences again in February, or earlier, according to the strength of the hive, and the season.

All the drone and workers' cells are wrought horizontally in the hive, as any one may have observed in a piece of comb. The queen cell hangs perpendicular from the comb, her head being undermost. I am unable to give any opinion for the reason of this strange position. The queen is fed with what Huber termed royal jelly—not an improper term, as it has just the consistency of apple jelly, but it is white, and has a sweet taste; while the workers are fed while in the cell—with a yellow or brownish matter, much thinner than that of the queen's, and has a bitter taste. They all eat themselves out of the cells without any assistance from the bees.—*Scottish Farmer.*

The Household.

Our Eyes.

Indigestion is the principal source of weak eyes. Reading in the cars often seriously disturbs the vision. A delicate and wonderful apparatus within the eye is constantly busy in adapting it to the varying focal distances. The jerking motion of the cars compels an exhaustive effort to maintain the required adaptation. Thousands of eyes are spoiled by reading in the cars and other vehicles. Recently I was consulted by a railroad expressman, who had become totally blind by reading the newspapers in the cars. Thousands who have never consciously suffered any inconvenience from the habit, are obliged to wear glasses prematurely to correct an unsteadiness of vision produced in this way. Reading with the gas light before you is another cause of weak eyes. The light should always hang quite high and behind you, and allowed to hang over the shoulder. If convenient it should be over the left shoulder. If using kerosene, it is best to employ the lamps which hang on the wall. Neither should you read with your face toward the window. Reading by twilight is dangerous. Gradually accommodating itself to the receding twilight, the eye is unconsciously strained. I have seen more than one case of grave disease of the eye, produced by an undue effort to use the vision too long at twilight. White paint outside, white paint inside, white paint everywhere. During the season of brightest sunshine, the glare hurts the eye. I wonder if it is not in bad taste likewise? I notice that artists have none of it about them. In our constant reading, the eyesight is much tried by the white paper. I hope that the tinted paper, with a still deeper color, may become fashionable. Avoid reading by artificial light when you can. We read too much. We read as we eat—pell-mell, hotchity-potch; no mastication, no digestion. If, as a people, we read less we might know more.

Few indications are more unpromising in a child than a remarkable passion for books. I doubt if a good lady, who called on me the other day with her son will ever forgive me for what I said to her. Her boy was of the regular Boston type—great head and eyes, with small and narrow chest. She said in a mournful voice, but with evident pride, "Ah, doctor, he has such a passion for books. As soon as he is out of bed, he is down at some great book, and scarcely leaves it but for his meals. He never plays like other children." I told her, among other things, that unless she could break up that habit, her son would very likely turn out a dolt. She left very soon with the belief that I did not understand her son's case. I should have about as much hope of a man who gave himself up to childish sports, as I should of a child who gave himself up to the habits and life of a man. The newspapers have much to answer for in the way of small type and imperfect printing. I would cheerfully give two hundred dollars a year to support a newspaper which would give us, morning and evening, a half column of the really reliable news, instead of fifteen columns of diluted speculations and tricky canards, the reading of which hurts our eyes and wastes our precious time.—*Dio Lewis.*

A writer in the *American Medical Gazette* gives the following lucid explanation of the phenomenon of a lady's blush: "The mind communicates with the central ganglion; the latter, by reflex action through the brain and facial nerve, to the organic nerves in the face, with which its branches innosculate." The blush loses nothing by the explanation.

We believe the following remedy for keeping babies quiet has been patented:—As soon as the squaller awakes set it up, propped by a pillow, if it cannot sit alone. Smear its fingers with thick molasses; then put half a dozen feathers into its hands, and it will sit and pick the feathers from one hand to the other until it drops asleep; as soon as it awakes again apply more feathers, and in the place of innumerable sleepless nights there will be silence and enjoyment unspeakable.

GIRLS, BEWARE!—Girls, beware of transient young men. Never suffer the addresses of a stranger. Recollect that one good farmer's boy, or industrious mechanic, is worth all the floating fops in the world. The allurements of a dandy Jack, with a gold chain round his neck, a walking stick in his paw, a three-penny cigar in his mouth, or some honest tailor's coat on his back, and a brainless, though fancy skull, never can make up the loss of a good father's home, and a good mother's counsel, and the society of brothers and sisters; their affections last, while that of such a young man is lost in the wane of the honey moon. 'Tis true.

SMART GIRLS.—During the past season the *Prairie Farmer* has given us, as the heading of an advertisement, a young lady seated on a "Sulky Hay Rake," from whose mouth proceeds a scroll with the inscription, "My brother has gone to the war." Riding there with both hands grasping the reins, we thought she was doing well for an Illinois girl. But just see what they do in Vermont. The last number of *Walton's Journal* gives the following as a specimen:—

Edith Wheatley, daughter of Nathaniel Wheatley, of Brookfield, Vt., is what we call a "smart" girl, though but fifteen years of age. She has this season raked 100 tons of hay, and while guiding the rake she quietly pursued her knitting.—*Locust Homestead.*

MEDICAL USE OF SALT.—The *Medical World* says in many cases of disordered stomach a tablespoonful of salt is a certain cure. In a violent internal pain termed cholera a teaspoonful of salt dissolved in a pint of water, taken as soon as possible, with a short nap immediately after, is one of the most effectual and speedy remedies known. The same will relieve a person who seems almost dead from a very heavy fall. In an apoplectic fit, no time should be lost in pouring down salt water, if sufficient sensibility remain to allow of swallowing; if not, the head must be sponged with cold water until the senses return, when salt will completely restore the patient from the lethargy. In a fit the feet should be placed in warm water, with mustard added, and the legs briskly rubbed; all the bandages removed from the neck, and cool aperient procured, if possible. In case of severe bleeding at the lungs, when other remedies failed, Dr. Rush found that two teaspoonfuls of salt stayed the blood.

A CURE FOR CHOLERA.—Dr. Chapman publishes a pamphlet to show that in the application of ice to the spine he has found a powerful remedy for cholera, and the slighter complaint of diarrhoea. He has only had the chance of trying his theoretic remedy on one case of cholera, and that, though it had all the worst symptoms, was probably a severe case of English rather than genuine Asiatic cholera. However, in that case it proved to be exceedingly effective in subduing all the more dangerous symptoms. On the lesser complaint both he himself, and Mr. D. M. Williams, honorary surgeon in the Liverpool Infirmary for Children, have more than once tried it with great effect. One of Mr. Williams' experiments with a child in the infirmary is very remarkable. The remedy is to apply an India-rubber bag full of ice "next to the skin, along the central line of the back, letting it extend from the nape of the neck to the lower part of the hollow of the back." This is kept close to the back, and is renewed as long as sickness, cramps, coldness of the skin, and other symptoms of cholera, or any sign of collapse continues. If, as is not unfrequent, feverish symptoms set in after the reaction is produced, he applies warm-water bags, with the water at 110 deg. to 120 deg., to the back to remove it. This is the chief element of his treatment, and, as we said, Dr. Chapman, arriving at this treatment on theory, has found it very successful in the instances in which he has been able to apply it.—*Spectator.*