

DO BEES VARY IN DIFFERENT PARTS OF GREAT BRITAIN?

I SHOULD feel much obliged if the "DEVONSHIRE BEEKEEPER" or any of your experienced correspondents would have the kindness to state whether there is any sensible difference between the bees kept in different parts of Great Britain. Several years ago an observant naturalist and clergyman, as well as a gardener, who kept bees, asserted positively that there were certain breeds of bees which were smaller than others, and differed in their tempers. The clergyman also said that the wild bees of certain forests in Nottinghamshire were smaller than the common tame bees. M. Godson, a learned French naturalist, also says that in the south of France the bees are larger than elsewhere, and that in comparing different stocks slight differences in the colour of their hairs may be detected. I have also seen if stated that the bees in Normandy are smaller than in other parts of France. I hope that some experienced observers who have seen the bees of different parts of Britain will state how far there is any truth in the foregoing remarks. In the Number of your Journal published May 15, 1860, Mr. Lowe gives a curious account of a new grey or light-coloured bee which he procured from a cottager. If this note should meet his eye I hope he will be so good as to report whether his new variety is still propagated by him.—CHARLES DARWIN.

[We insert this without expressing any opinion, because we wish to have answers from as many of our readers as have paid attention to the subject. We, as well as the well-known writer of the inquiry, will be greatly obliged by any observations upon the subject.—EDS. J. OF H.]

Godson

GREAT FECUNDITY AND PREMATURE DEATH OF A LIGURIAN QUEEN.

"THE old queen leads off the first swarm," is an aphorism enunciated in nearly every bee-book, and is certainly as trustworthy an axiom as any that can be propounded for the guidance of apiarians. That even this universally accepted rule is, however, not altogether without its exceptions, has just been proved to my complete satisfaction, or rather, I should say, to my complete dissatisfaction, since it has cost me the life of a valuable Ligurian queen, besides destroying the hopes I entertained of obtaining a magnificent super of pure honeycomb.

At the commencement of the season I set aside one of my strongest stocks with a beautiful Ligurian queen only one year old, for supering, with the view of proving what could be done with an undisturbed colony of Ligurians. Although the stock-box was a large one (14½ inches square by 9 inches deep, with ten frames) the bees soon took full possession of a super 13 inches square by 7 inches deep, and when this became pretty well filled I raised it on another of the same diameter and 6 inches deep, into which they soon extended their combs, and being in great numbers in wax-working festoons. All appeared going on well until to-day (4th June), when without the slightest premonitory symptoms an immense swarm suddenly issued about half-past twelve o'clock, filling the air in such numbers that they literally obscured the sun, at that time shining most brilliantly. After a little while I found them settled in two clusters on two different gooseberry bushes. Struck by this circumstance occurring with a first swarm, which ought, of course, to have but one queen, and that the old one, I betought me of examining the ground in front of the hive, and there to my great mortification I found the dead body of the royal mother of all these countless thousands. Although life was perfectly extinct, she had evidently not been dead long, and now all became clear to me. In my mind's eye I witnessed the escape of a young princess from her waxen prison, next followed the duel, *à l'outrance*, ending in the death of the queen regnant, then came the probable escape of one or more young princesses, sisters of the victor, the confusion caused thereby culminating in the tumultuous issue of an enormous swarm.

As it appeared possible that under these circumstances there might really be two queens present, I resolved upon treating the clusters as distinct swarms, and endeavouring to establish them as two independent colonies. With this view I shook the smallest into an empty box, and put it immediately in the old stock's place, removing the latter to a new position, and taking from it the super with the bees and combs which it contained. Into this super I shook the remaining large cluster of bees, and established it at once as a separate stock. About an hour after-

wards I noticed that the first-hived swarm and returning bees from the old stock appeared by no means satisfied with their new habitation; whilst many stragglers were still hovering round the gooseberry bushes. This led me to a closer inspection of the latter, and upon one of them I found yet a third cluster of bees as large as a moderate-sized swarm. Bringing the box of dissatisfied bees close to the bush, and placing it upon a cloth spread under the cluster, I raised its front upon a couple of blocks and swept down the overhanging mass. An immediate rush into the box was the result, and in a short time I was enabled to return the hive to its place with a united and contented population. Many hundreds of bees still remaining on the cloth, I remembered the fact that bees from a second swarm* having only an unimpregnated queen will accept any fertile sovereign that may be offered to them; and having satisfied myself by a careful scrutiny of the laggards that their queen had already sought refuge in the box, I at once availed myself of it by conveying them on the cloth to the side of a hive containing a magnificent Ligurian queen, which had for her subjects only a few young bees scarcely able to take wing. Gently raising the side of the hive upon a couple of wedges, I insinuated under it the edge of the cloth. An almost instantaneous vibration of the wings of the whole party soon proclaimed that they likewise had found a home, and a cordial fraternalisation upon terms of mutual accommodation was the result.

Being perfectly satisfied that the first-hived colony was now in possession of a queen, although I had not actually seen her, I turned my attention to those in the super. Not doubting from their behaviour that they had a queen either in *esse* or in *posse*, I was yet willing to obtain ocular demonstration of the fact, and therefore proceeded to shift the bees with their combs into the hive they were intended permanently to occupy. On lifting them out I was astounded at the masses of sealed brood (mostly worker) which met my view. Six combs, 13 inches wide by 9 inches deep, were completely filled; whilst hanging to their edges were royal cells in every stage of progress. Failing to detect a queen among the enormous number of bees which crowded the box, I first shook two or three clusters of the super-abundant population into a weak stock possessing only embryo queens, with the inhabitants of which they immediately fraternised, and then cut out three fully-developed royal cells which I thought could well be spared for queen-rearing operations.

The results of this unlooked-for swarm may be thus briefly summed up:—I have sufficient bees to form three strong colonies, besides some thousands spared to strengthen two weak stocks. Although I have failed in my attempt to obtain honey, I have again demonstrated the amazing fecundity of Ligurian queen bees. When it is borne in mind that this colony was in the outset by no means a particularly strong one, and that breeding did not commence in it until March was pretty far advanced, I think any one who peruses the foregoing simple statement of facts can scarcely fail to participate in the astonishment felt by—
—A DEVONSHIRE BEE-KEEPER.

QUEEN BEES DESTROYED BY THEIR OWN WORKERS.

In page 110 I narrated my own experience of this phenomenon, and quoted a somewhat similar instance related by Herr Rothe. In a subsequent Number of the German "Bee Journal" the subject is referred to by Herr Wallbrecht, who says:—

"Much has already been written about the change of queens, and it may indeed very often happen when even the bee-master does not observe it. This is especially the case with the 'pudicitäten';* or bell-shaped straw hives, which are not easily examined; but in boxes with moveable combs it not unfrequently happens. My fellow apiarian, Herr Rothe, ascribes such a revolution to the frequent disturbance of the stock, and believes this to be in most cases, if not always, the cause of hostile attacks upon queens by their own bees. But this is not my opinion. I am much more inclined to think of believe that when bees are disturbed they are the least likely to think of attacking their queen, but rather endeavour to protect their own property and sovereign to the utmost of their power. We therefore observe how soon all the bees fill themselves with honey in order to secure as much as possible, and at last attack him hostilely that occasioned the disturbance.

"The true motives of every imprisonment and ultimate destruction of the queen it would be very difficult to discover; but they may be weakness, exhausted fertility, and other causes. As at summer I lost a queen in a box without having disturbed it; and I think if this happens once it may occur

* Although this was not a second swarm it possessed only an unimpregnated queen, the old queen having been destroyed as above related.

* Literally "poodle-caps," a kind of fur cap often made of the skin of a poodle dog, and which, fitting close to the head, presents a very exact type of the ordinary straw hive. These caps were formerly much worn in Germany.