

handle of a garden spade, on a post, and on a pea stick on each occasion respectively. In each case the alien was balled on the floorboard, and no doubt would soon have been despatched had I not rescued them. As they receive so little homage they thus quickly present the appearance of non-laying queens and are nearly as capable of flight, as no partly or wholly digested food is offered them (the food bees feed the queen with being about the same as they feed to the brood.)

But why is she superseded? It is no use saying dethroned, as she never had the honor of reigning. Of course I am now speaking about alien queens, and if she was in a stimulated condition eggs would be deposited or dropped, and while there is an egg in the hive (whether queen cells are present or not) the bees will try to develop it into a queen, so that if the first started cells were on the old brood the new queen might destroy them as soon as they become nymphs. Then if she left the hive in disgust or because she got no homage, why of course a daughter of hers takes her place.

I have found by repeated experiments that as soon as a queen is taken out of a seam of bees, operations are commenced to raise a mother bee, and by even placing the queen on to another frame these operations will be commenced. Sometimes she will then be crushed to death. By means of the so-called dummies a number of queen cells may be started and completed in the same time, providing each cluster is separated. I do not mean cork packed or great thick dummies, but perforated zinc. The main point being to place the queen on to a different frame after a few eggs are laid in a few cells. But why is she not destroyed on the new frame? Simply because the whole family is working in natural harmony or habit. It is the habit for the queen to move from frame to frame; but mark well, it is not the habit of the queen to do so until the whole of her business is transacted upon that particular frame, hence the break appearing it is the habit of the bees to perform the operations of raising a new queen. During the summer so many of the brood cells become clogged with stores that the queen wanders from comb to comb, which causes the same thing to be done, hence the swarming fever. The queen gradually becomes of a non-laying appearance and quite capable of flight, owing to the want of the necessary amount of feeding and attention she should have to keep up her former state, and leaves the hive as an insect a little removed above the habit of a worker. If this is not so, for why do they do it? Moreover, no attention is paid to an alien, as it is not her, or the custom,

fashion or habit, for queens to be carried from one hive to another.

Now, suppose there are no eggs in the hive, how can the bees raise a queen? They cannot do it. Place a frame containing a few eggs into the hive. Why do the bees recognise this gift? It is their habit to obtain all they can, which we all know perfectly well; and as I have already stated it is their habit to raise a successor from the egg. They therefore gladly commence operations upon this frame of eggs. The same conditions as above being present—i.e., in a disorganised state.

Now, suppose the whole of their eggs and means of raising a new queen are withdrawn, or more naturally their queen dies in a state of nature perhaps there is at no time of the year a hive without eggs in a normal state. If this death happen at a time when fertilisation cannot be obtained the hive died out, or else should a fertile queen, say at mating or swarming time, fly to this hive, the habit is (we challenge anyone to contradict this) that this queen is accepted. Hence the Hallamshire law is on natural and correct lines. I have no hesitation in saying from my own experiments that if the law is truly and faithfully tried it will invariably succeed, excepting those few persons who believe and state their own way is best, and who omit or cannot discern some of the particulars and conditions of the Hallamshire law.

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## QUERIES AND REPLIES.

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UNDER THIS HEAD will appear Questions which have been asked, and replied to, by prominent and practical bee-keepers—also by the Editor. Only questions of importance should be asked in this Department, and such questions are requested from everyone. As these questions have to be put into type, sent out for answers, and the replies all awaited for, it will take some time in each case to have the answers appear.

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QUERY No. 184.—Should bees have water given them while in winter quarters, or when they can fly out, and if so, when and how often?

M. EMIGH.—I don't think they need any water given them.

PROF. COOK.—I think there is no use of giving water in winter.

DR. C. C. MILLER.—I never give mine any, but it is possible it might be a good thing.

O. G. RUSSELL.—I don't think it is necessary while in winter quarters. When they can fly out they will supply themselves with water.

G. M. DOOLITTLE.—I do not practise giving bees water in winter, as several trials have