

over with carbolic acid solution except one cell, upon which the alien queen might be caged after the larvæ or nymph has been destroyed. The queen may be liberated at dusk the next day. This deceives the bees so far as we are able, and causes them to believe their own endeavors have been successful.

There are objections to cages of all kinds—e.g., the queen is confined, and so valuable time for egg-laying is lost; but this must be sacrificed for safety by this plan of introduction. There is an alternative method for those who object to cages, but which from very careful experiments I cannot do otherwise than condemn; in fact, I have not had a single success by it, nor have I known one by any of my friends who are keen and careful observers. It has been denominated "Pond's," sometimes "Simmins'," method; at present I have not time to describe it. I will, however, say, as "Felix" has just been treating on the subject and giving instructions for doing "Pond's" or "Simmins'" (?) system and in no instance did I find the queen missing on the third day though fully half were on the tenth day; therefore the system seems a very valuable one for queen dealers, as they can guarantee safe introduction, telling their customers to look on the third day to be sure, and yet prepare to send them another on the fourteenth, by which time she will be lost in some unaccountable manner.

Often these queens will drop a few eggs, and through some peculiar instinct of the bees these eggs are often, if not always, selected to rear the fresh queens from; therefore if the apiarist is busy, and does not happen to frequently examine the hive, taking things for granted, he will have a hybridised daughter reigning, and think she is the one he introduced, if he had not marked her. I might also say I have several times, upon the ninth day, found the poor queen upon an outside comb in a starving condition quite alone. Upon microscopic examination, in a few cases, a very poor condition of the ovaries has presented itself, through neglect by the subjects, although in other cases neither neglect nor disease could be traced. Moreover, I have for some years, upon quite a number of occasions, tried the "Hallamshire law," and having tried this at various periods of the year, I can truly say, provided the instructions are faithfully carried out, a "fertile" queen presented, &c., I have never found this method fail, and I have staked some expensive and pet queens on it. I do not, however, like the idea of withdrawing all the new laid eggs and unsealed brood, which is so very necessary, but "the shortest way across is the longest way round." Nevertheless the Hallamshire law is based on natural lines, while the other cannot

be reconciled at all, except that we might consider the alien undergoes such a state of subjection, or fright, and hunger, that she is glad to set to board and lodging, but this we can plainly see drives her into such a gone-back egg-laying condition, that she is, sooner or later, rendered quite unfitted for her motherly duties.

I have been very successful by a method that can be used at any time of the year—I allude to the method of shaking the bees off their combs in order to get them into the condition of a swarm. This exposes brood to the atmosphere unless performed in a manipulating house, but of course eggs could perhaps be fixed in some other hive in the apiary in the case of this method, as also in the Hallamshire law.

With regard to the Hallamshire law and the reason why bees prefer eggs or larvæ to raise their own queens rather than accept a strange or alien queen. I have often thought that the force of habit is too often either not recognised or overlooked in dealing with bees. All my experiments in faithfully trying Simmins' proposed method of queen introduction have resulted in the desired queen being "put out of the way" when means of raising a successor were present in the hive, for the bees have invariably raised a queen after their own will. I have carefully marked a few of those queens and have watched the proceedings of the bees most attentively; in fact, I believe Burnens could not have been more attentive, and the finale has each time been the same when eggs or larvæ have been in the hive at the time of introduction. As I have already stated, immediately the cluster is broken to withdraw the queen to substitute an alien the colony is disorganised. I might say I have never placed another queen on the identical spot the original queen was parading at the same moment of removing it. There is no doubt about the bees sometimes suffering the queen to remain within the hive apparently uninjured for a period of time when ushered in upon the Simmins' or Pond's system. This period I have not found to exceed nine or ten days; the poor insect gradually moving from comb to comb to the outside of the cluster, there to perish and be carried out of the hive, though sometimes it is highly probable it may leave the hive alive through lack of homage. I have observed the bees carrying the deceased queen out, and I have seen the queen take refuge from one hive to another. It may be interesting for me to relate that I have on these occasions found alien queens so acting in this latter manner, and that in each case, although the queen entered another hive, a few bees seemed to accompany, but their courage or love seemed to falter as they clustered on the